

(FILE 'HOME' ENTERED AT 10:11:38 ON 27 JUL 2000)

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ACT LEE381S/A

L1 STR
L2 SCR 1838 AND 2016
L3 (5213)SEA FILE=REGISTRY SSS FUL L1 AND L2
L4 STR
L5 4236 SEA FILE=REGISTRY SUB=L3 SSS FUL L4

L6 1178 S L5 AND 1/NR
L7 1595293 S NC5/ES OR OC5/ES OR SC5/ES
L8 4236 S L7 AND L5
L9 1296516 S 46.157.1/RID OR 46.156.1/RID OR 46.150.1/RID
L10 4214 S L5 AND L9
L11 81 S L10 AND 46.150.1/RID
L12 802 S L10 AND 46.150.18/RID

=> d bib abs hitstr 151 1

151 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:794364 HCAPLUS

DN 132:35986

TI Preparation of spinosyn macrocyclic lactone aminodeoxy glycosides as insecticides and miticides

IN Deamicis, Carl Vincent; Anzeveno, Peter Biagio; Martynow, Jacek G.; McLaren, Kevin L.; Green, Frederick Richard, III; Sparks, Thomas C.; Kirst, Herbert A.; Creemer, Lawrence Camillo; Worden, Thomas V.; Schoonover, Joe Raymond, Jr.; Gifford, James Michael; Hatton, Christopher J.; Hegde, Vidyadhar B.; Crouse, Gary D.; Thoreen, Brian R.; Ricks, Michael J.

PA Dow Agrosiences LLC, USA

SO U.S., 122 pp., Cont. of U.S. Ser. No. 662,549, abandoned.

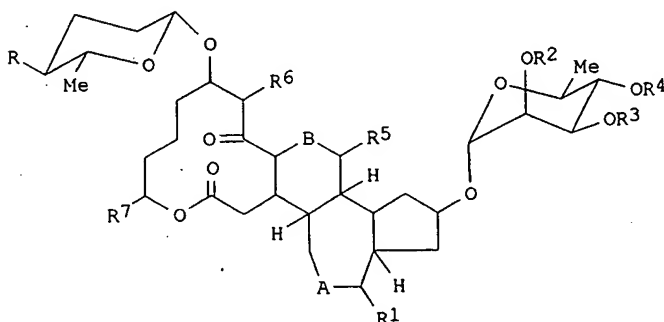
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6001981	A	19991214	US 1997-968856	19971105
PRAI	US 1996-662549		19960613		
OS	MARPAT 132:35986				
GI					



I

AB Title compds. I (A, B = single bond, double bond, **epoxide** linkage; R = alkylamino, ether; R1, R6 = H, Me; R2-R4 = alkyl, haloalkyl, alkanoyl, OH; R5 = H, alkyl, alkylamino, alkylhydroxylamino; R7 = Me, Et) are prepd. by modifying the compds. that are naturally produced from *Saccharopolyspora spinosa*. The compds. of the invention have been shown to have activity against insects and mites. The compds. are prepd. by modifying the rhamnose sugar, modification of the forosamine sugar, or starting with pseudo-aglycon and then replacement with a nonsugar deriv. or different sugar, modification of the 5, 6, 5-tricyclic and 12-membered macrocyclic lactone part of the compds. naturally produced or of the pseudo-aglycon of the natural compds. Thus, 2'-O-trifluoroacetyl spinosyn Q was prepd. and tested as a control of *Stomoxys calcitrans* (stable fly) and *Phormia regina* (blow fly) with 100% of ASF killed at 100 ppm.

IT 153223-05-3P 187171-06-8P 187171-07-9P
187171-08-0P

RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of spinosyn macrocyclic lactone aminodeoxy glycosides as insecticides and miticides)

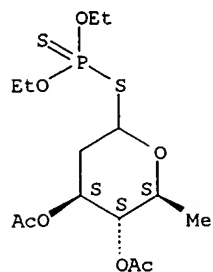
RN 153223-05-3 HCAPLUS

CN L-arabino-Hexopyranose, 2,6-dideoxy-1-thio-, 3,4-diacetate 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

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Page 1

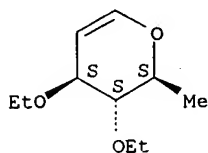
Absolute stereochemistry.



RN 187171-06-8 HCAPLUS

CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-3,4-di-O-ethyl- (9CI) (CA INDEX NAME)

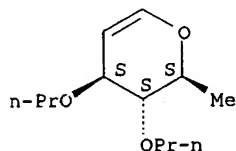
Absolute stereochemistry.



RN 187171-07-9 HCAPLUS

CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-3,4-di-O-propyl- (9CI) (CA INDEX NAME)

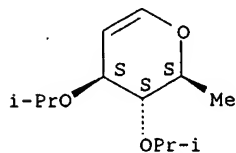
Absolute stereochemistry.



RN 187171-08-0 HCAPLUS

CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-3,4-bis-O-(1-methylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 110-87-2, 3,4-Dihydro-2H-pyran 34819-86-8

RL: RCT (Reactant)

(prepn. of spinosyn macrocyclic lactone aminodeoxy glycosides as insecticides and miticides)

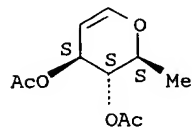
RN 110-87-2 HCAPLUS

CN 2H-Pyran, 3,4-dihydro- (8CI, 9CI) (CA INDEX NAME)



RN 34819-86-8 HCAPLUS
CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-, diacetate (9CI) (CA
INDEX NAME)

Absolute stereochemistry.



RE.CNT 50

RE

(3) Anon; EP 0375316 A1 1989 HCAPLUS

(4) Anon; WO 91/06552 1991 HCAPLUS

(5) Anon; WO 93/09126 1993 HCAPLUS

(6) Baker; US 5227295 1993 HCAPLUS

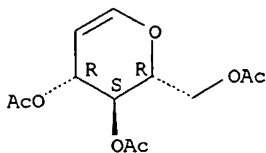
(8) Boeck; 1991 HCAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 151 2

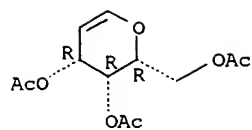
LS1 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2000 ACS
 AN 1999:372448 HCAPLUS
 DN 131:130181
 TI Electrophilic Fluorination-Nucleophilic Addition Reaction Mediated by Selectfluor: Mechanistic Studies and New Applications
 AU Vincent, Stephane P.; Burkart, Michael D.; Tsai, Chung-Ying; Zhang, Zhiyuan; Wong, Chi-Huey
 CS Department of Chemistry and the Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
 SO J. Org. Chem. (1999), 64(14), 5264-5279
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 131:130181
 AB The electrophilic fluorination-nucleophilic addn. reaction with Selectfluor-type reagents upon glycals has been studied and optimized. This reaction leads to selective fluorination at the 2-position with concomitant nucleophilic addn. to the anomeric center. To understand the stereochem. outcome of this process, a mechanistic study has led to the discovery that, in the fucose series, Selectfluor adds specifically in a syn manner, yielding a 1-[TEDA-CH₂Cl]-2-fluoro saccharide that anomerizes slowly to a more stable intermediate. The anomeric .alpha./.beta. distribution was studied as a function of reactants and conditions, and it was found that a judicious choice of protective group strategy can improve the stereoselectivity of both fluorination and nucleophilic addn. Furthermore, a hypersensitive radical probe was used to probe the reaction, and no product characteristic of a radical process was isolated, suggesting that no single electron transfer occurs during the attack of the glycal on Selectfluor. The importance of solvent effect, Selectfluor counterion, and stepwise procedure has also been discussed. This study has brought an important improvement of yields and a broader range of allowed nucleophiles such as secondary alcs. of carbohydrates, amino acids, phosphates, or phosphonates. This optimized process was further applied to the modification of important bioactive mols., including the synthesis of fluorinated daunomycin and oleandrin analogs and the oxidn. of thio glycosides to the corresponding sulfoxides.
 IT 2873-29-2 4098-06-0 13322-90-2
 34948-79-3 54621-94-2 130061-16-4
 149198-97-0 233751-22-9
 RL: RCT (Reactant)
 (electrophilic fluorinationnucleophilic addn. reaction mediated by selectfluor mechanistic studies and new applications)
 RN 2873-29-2 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



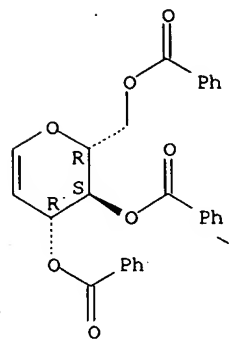
RN 4098-06-0 HCAPLUS
 CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



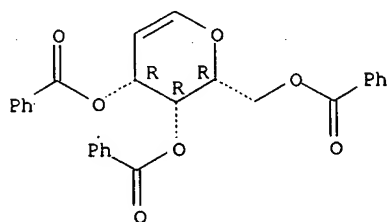
RN 13322-90-2 HCAPLUS
CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



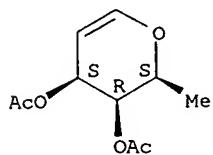
RN 34948-79-3 HCAPLUS
CN D-lyxo-Hex-1-enitol, 1,5-anhydro-2-deoxy-, tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



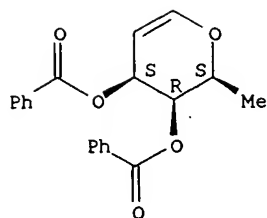
RN 54621-94-2 HCAPLUS
CN L-arabino-Hex-5-enitol, 2,6-anhydro-1,5-dideoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



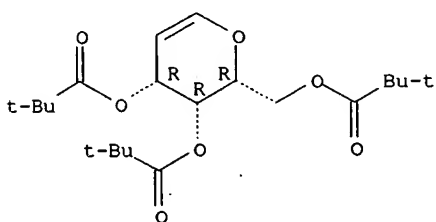
RN 130061-16-4 HCAPLUS
CN L-arabino-Hex-5-enitol, 2,6-anhydro-1,5-dideoxy-, dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



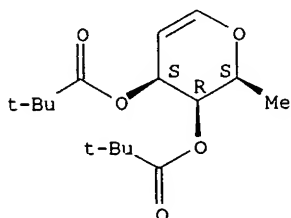
RN 149198-97-0 HCAPLUS
CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-, tris(2,2-dimethylpropanoate)
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



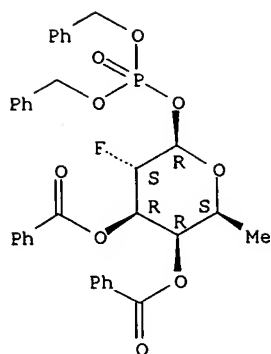
RN 233751-22-9 HCAPLUS
CN L-arabino-Hex-5-enitol, 2,6-anhydro-1,5-dideoxy-, bis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



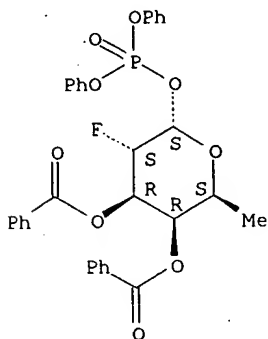
IT 233751-25-2P 233751-26-3P 233751-27-4P
233751-28-5P 233751-30-9P 233751-51-4P
233751-52-5P 233751-53-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(electrophilic fluorinationnucleophilic addn. reaction mediated by
selectfluor mechanistic studies and new applications)
RN 233751-25-2 HCAPLUS
CN .beta.-L-Galactopyranose, 2,6-dideoxy-2-fluoro-, 3,4-dibenzoate
1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



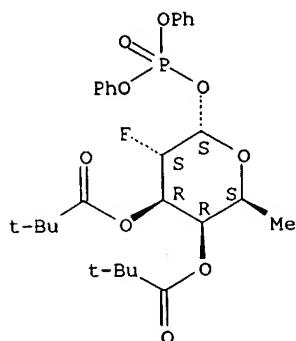
RN 233751-26-3 HCAPLUS
 CN .alpha.-L-Galactopyranose, 2,6-dideoxy-2-fluoro-, 3,4-dibenzoate
 1-(diphenyl phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



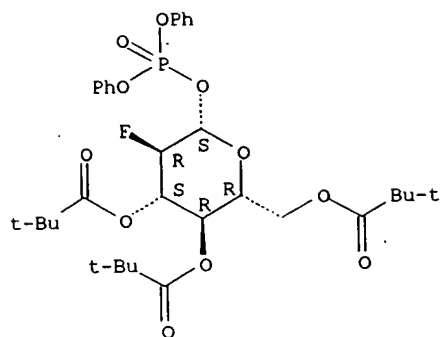
RN 233751-27-4 HCAPLUS
 CN .alpha.-L-Galactopyranose, 2,6-dideoxy-2-fluoro-, 3,4-bis(2,2-
 dimethylpropanoate) 1-(diphenyl phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



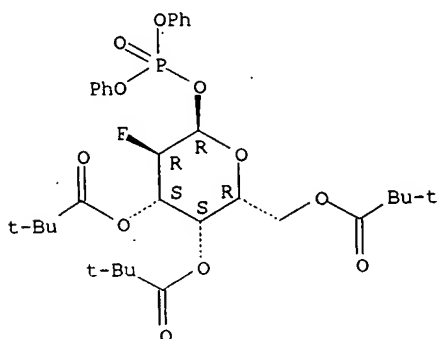
RN 233751-28-5 HCAPLUS
 CN .beta.-D-Glucopyranose, 2-deoxy-2-fluoro-, 3,4,6-tris(2,2-
 dimethylpropanoate) 1-(diphenyl phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



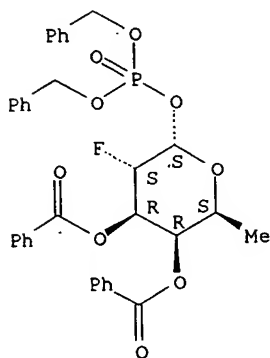
RN 233751-30-9 HCAPLUS
 CN .alpha.-D-Galactopyranose, 2-deoxy-2-fluoro-, 3,4,6-tris(2,2-dimethylpropanoate) 1-(diphenyl phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



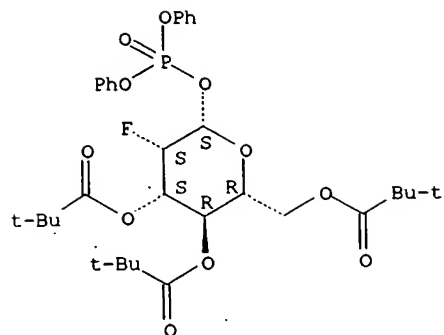
RN 233751-51-4 HCAPLUS
 CN .alpha.-L-Galactopyranose, 2,6-dideoxy-2-fluoro-, 3,4-dibenzoate 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



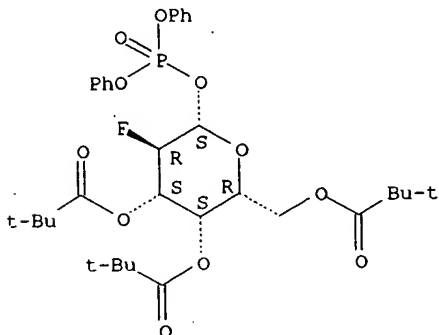
RN 233751-52-5 HCAPLUS
 CN .beta.-D-Mannopyranose, 2-deoxy-2-fluoro-, 3,4,6-tris(2,2-dimethylpropanoate) 1-(diphenyl phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 233751-53-6 HCAPLUS
 CN .beta.-D-Galactopyranose, 2-deoxy-2-fluoro-, 3,4,6-tris(2,2-dimethylpropanoate) 1-(diphenyl phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 56

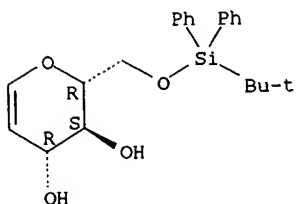
RE

- (2) Albert, M; Tetrahedron 1998, V54, P4839 HCAPLUS
 - (3) Ashby, E; Tetrahedron Lett 1987, V28, P3197 HCAPLUS
 - (4) Banks, R; US 5086178 1992 HCAPLUS
 - (5) Banks, R; J Fluorine Chem 1996, V76, P161 HCAPLUS
 - (6) Berger, I; Nucleic Acids Res 1998, V26, P2473 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 151 3

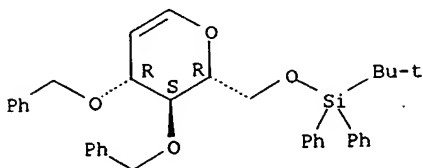
L51 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2000 ACS
 AN 1998:316594 HCAPLUS
 DN 129:54492
 TI An expeditious route to Streptococci and Enterococci glycolipids via ring-opening of 1,2-anhydrosugars with protic acids
 AU Timmers, C. M.; Van Straten, N. C. R.; Van der Marel, G. A.; Van Boom, J. H.
 CS Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden University, Leiden, 2300 RA, Neth.
 SO J. Carbohydr. Chem. (1998), 17(3), 471-487
 CODEN: JCACDM; ISSN: 0732-8303
 PB Marcel Dekker, Inc.
 DT Journal
 LA English
 AB 1,2-Anhydroglucose reacts smoothly and with a high degree of stereoselectivity with a variety of carboxylic and phosphoric acids resulting in the formation of the predominantly .beta.-oriented 1-O-acyl and 1-O-phosphorylglucoses. This methodol. has been successfully applied in the construction of glycolipids. Ring-opening of the 1,2-anhydroglucose deriv. with benzoic acid furnished exclusively the .beta.-aligned key intermediate. Subsequent ICDT-assisted chemoselective .alpha.-glucosylation with thioethyl donor, followed by glycosidation of kojibiosyl benzoate with glycerol acceptor gave the fully protected .alpha.-diglucosyl glycerol deriv., which upon desilylation, acylation and deprotection afforded the target glycolipids in high overall yield.
 IT 87316-22-1
 RL: RCT (Reactant)
 (an expeditious route to Streptococci and Enterococci glycolipids via ring-opening of anhydrosugars with protic acids)
 RN 87316-22-1 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-6-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 137792-57-5P 208656-40-OP 208656-41-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation)
 (an expeditious route to Streptococci and Enterococci glycolipids via ring-opening of anhydrosugars with protic acids)
 RN 137792-57-5 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-6-O-[(1,1-dimethylethyl)diphenylsilyl]-3,4-bis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

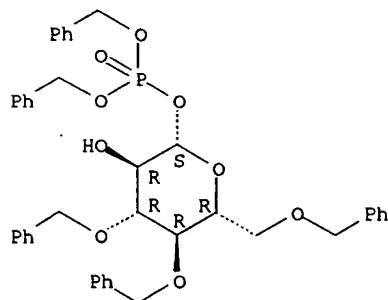


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RN 208656-40-0 HCAPLUS

CN .beta.-D-Glucopyranose, 3,4,6-tris-O-(phenylmethyl)-, 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

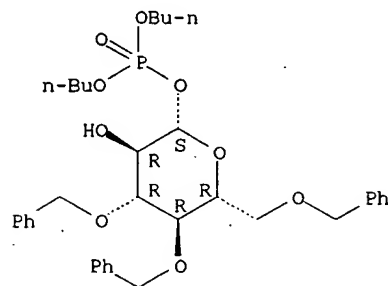
Absolute stereochemistry.



RN 208656-41-1 HCAPLUS

CN .beta.-D-Glucopyranose, 3,4,6-tris-O-(phenylmethyl)-, 1-(dibutyl phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 177701-66-5P 208656-42-2P 208656-43-3P

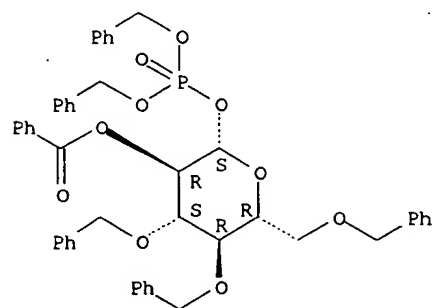
RL: SPN (Synthetic preparation); PREP (Preparation)

(an expeditious route to Streptococci and Enterococci glycolipids via ring-opening of anhydrosugars with protic acids)

RN 177701-66-5 HCAPLUS

CN .beta.-D-Glucopyranose, 3,4,6-tris-O-(phenylmethyl)-, 2-benzoate 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

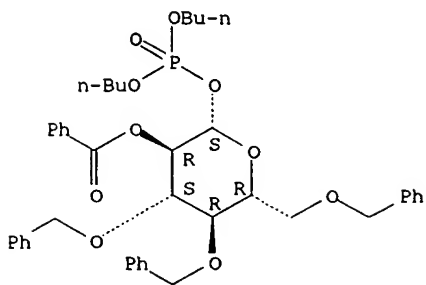


RN 208656-42-2 HCAPLUS

CN .beta.-D-Glucopyranose, 3,4,6-tris-O-(phenylmethyl)-, 2-benzoate 1-(dibutyl phosphate) (9CI) (CA INDEX NAME)

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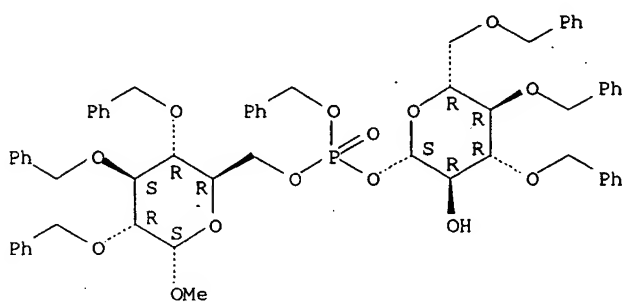
Absolute stereochemistry.



RN 208656-43-3 HCAPLUS

CN .beta.-D-Glucopyranose, 3,4,6-tris-O-(phenylmethyl)-, 1-(phenylmethyl hydrogen phosphate), ester with methyl 2,3,4-tris-O-(phenylmethyl)-.alpha.-D-glucopyranoside (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 151 4

L51 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2000 ACS

AN 1997:181111 HCAPLUS

DN 126:171845

TI Preparation of spinosyn macrocyclic lactone aminodeoxy glycosides as insecticides and miticides

IN Deamicis, Carl Vincent; Anzeveno, Peter Biagio; Martynow, Jacek G.; McLaren, Kevin L.; Green, Frederick Richard, III; Sparks, Thomas C.; Kirst, Herbert A.; Creemer, Lawrence Camillo; Worden, Thomas V.; Schoonover, Joe Raymond, Jr.; Gifford, James Michael; Hatton, Christopher J.; Hegde, Vidyadhar B.; Crouse, Gary D.; Thoreen, Brian R.; Ricks, Michael J.; et al.

PA Dowelanco, USA; Deamicis, Carl Vincent; Anzeveno, Peter Biagio; Martynow, Jacek G.

SO PCT Int. Appl., 280 pp.

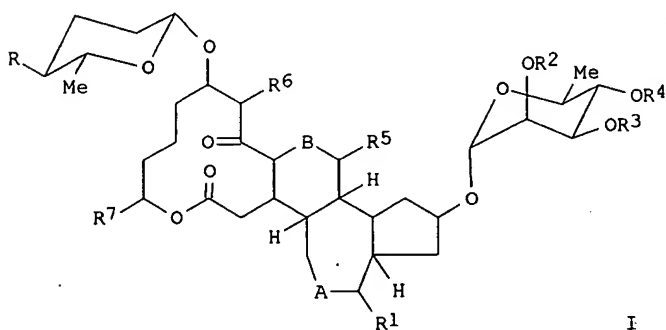
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9700265	A1	19970103	WO 1996-US10327	19960613
	W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI			
	RW:	AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE			
	AU 9661771	A1	19970115	AU 1996-61771	19960613
	AU 711185	B2	19991007		
	EP 837870	A1	19980429	EP 1996-919423	19960613
	R:	DE, ES, FR, GB, IT			
	CN 1191541	A	19980826	CN 1996-195634	19960613
	BR 9608380	A	19990105	BR 1996-8380	19960613
	JP 11506117	T2	19990602	JP 1996-503351	19960613
PRAI	US 1995-201		19950614		
	US 1995-1435		19950714		
	US 1995-9006		19951221		
	WO 1996-US10327		19960613		
OS	MARPAT 126:171845				
GI					



AB Title compds. I (A, B = single bond, double bond, **epoxide** linkage; R = alkylamino, ether; R1, R6 = H, Me; R2-R4 = alkyl, haloalkyl, alkanoyl, OH; R5 = H, alkyl, alkylamino, alkylhydroxylamino; R7 = Me, Et) are prepd. by modifying the compds. that are naturally produced from *Saccharopolyspora spinosa*. The compds. of the invention have been shown to have activity against insects and mites. The compds. are prepd. by

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modifying the rhamnose sugar, modification of the forosamine sugar, or starting with pseudo-aglycon and then replacement with a nonsugar deriv. or different sugar, modification of the 5, 6, 5-tricyclic and 12-membered macrocyclic lactone part of the compds. naturally produced or of the pseudo-aglycon of the natural compds. Thus, 2'-O-trifluoroacetyl sponosyn Q was prepd. and tested as a control of *Stomoxys calcitrans* (stable fly) and *Phormia regina* (blow fly) with 100% of ASF killed at 100 ppm.

IT 153223-05-3P

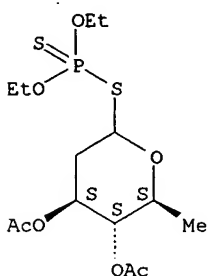
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); RCT (Reactant); **SPN (Synthetic preparation)**; ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(no .alpha./.beta. information given; prepn. of spinosyn macrocyclic lactone aminodeoxy glycosides as insecticides and miticides)

RN 153223-05-3 HCAPLUS

CN L-arabino-Hexopyranose, 2,6-dideoxy-1-thio-, 3,4-diacetate 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 187171-06-8P 187171-07-9P 187171-08-0P

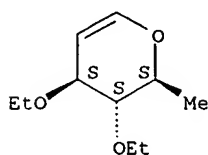
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of spinosyn macrocyclic lactone aminodeoxy glycosides as insecticides and miticides)

RN 187171-06-8 HCAPLUS

CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-3,4-di-O-ethyl- (9CI) (CA INDEX NAME)

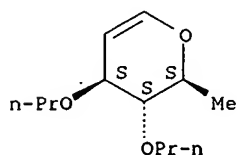
Absolute stereochemistry.



RN 187171-07-9 HCAPLUS

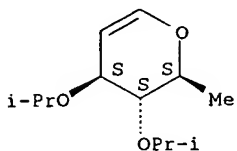
CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-3,4-di-O-propyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 187171-08-0 HCAPLUS
 CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-3,4-bis-O-(1-methylethyl)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

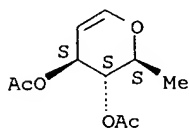


IT 110-87-2, 3,4-Dihydro-2H-pyran 34819-86-8
 RL: RCT (Reactant)
 (prepn. of spinosyn macrocyclic lactone aminodeoxy glycosides as
 insecticides and miticides)
 RN 110-87-2 HCAPLUS
 CN 2H-Pyran, 3,4-dihydro- (8CI, 9CI) (CA INDEX NAME)



RN 34819-86-8 HCAPLUS
 CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-, diacetate (9CI) (CA
 INDEX NAME)

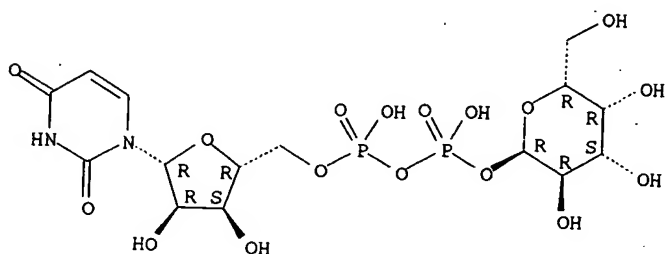
Absolute stereochemistry.



=> d bib abs hitstr 140 3

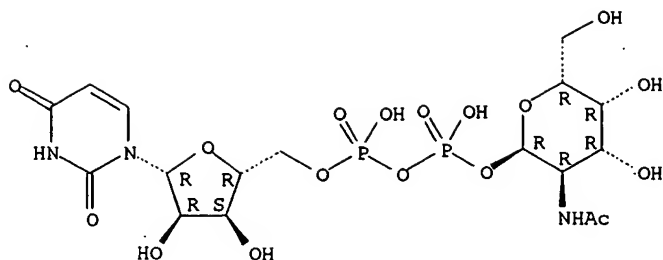
L40 ANSWER 3 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1999:152751 HCAPLUS
 DN 130:322251
 TI Donor substrate specificity of recombinant human blood group A, B and hybrid A/B glycosyltransferases expressed in *Escherichia coli*
 AU Seto, Nina O. L.; Compston, Catherine A.; Evans, Stephen V.; Bundle, David R.; Narang, Saran A.; Palcic, Monica M.
 CS Institute for Biological Sciences, National Research Council of Canada, Ottawa, ON, Can.
 SO Eur. J. Biochem. (1999), 259(3), 770-775
 CODEN: EJBACI; ISSN: 0014-2956
 PB Blackwell Science Ltd.
 DT Journal
 LA English
 AB The human blood group A and B glycosyltransferases catalyze the transfer of GalNAc and Gal, to the (O)H-precursor structure Fuc.alpha.(1-2)Gal.beta.-OR to form the blood group A and B antigens, resp. Changing four amino acids (176, 235, 266 and 268) alters the specificity from an A to a B glycosyltransferase. A series of hybrid blood group A/B glycosyltransferases were produced by interchanging these four amino acids in synthetic genes coding for sol. forms of the enzymes and expressed in *Escherichia coli*. The purified hybrid glycosyltransferases were characterized by two-substrate enzyme kinetic anal. using both UDP-GalNAc and UDP-Gal donor substrates. The A and B glycosyltransferases were screened with other donor substrates and found to also utilize the unnatural donors UDP-GlcNAc and UDP-Glc, resp. The kinetic data demonstrate the importance of a single amino acid (266) in detg. the A vs. B donor specificity.
 IT 2956-16-3, UDP-Galactose 7277-98-7
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (donor substrate specificity of recombinant human blood group A, B and hybrid A/B glycosyltransferases expressed in *Escherichia coli*)
 RN 2956-16-3 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 7277-98-7 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-[2-(acetilamino)-2-deoxy-.alpha.-D-galactopyranosyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 25

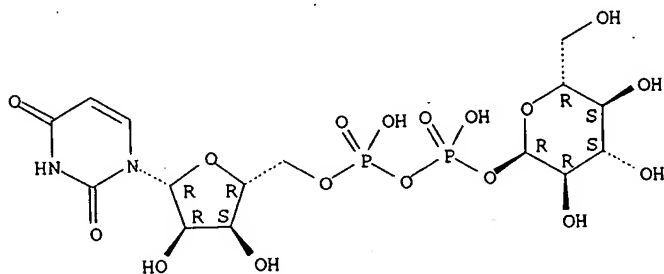
RE

- (1) Breton, C; Glycobiology 1996, V6, Pvi1 HCAPLUS
 - (2) Breton, C; J Biochem 1998, V123, P1000 HCAPLUS
 - (4) Evans, S; J Mol Graphics 1993, V11, P134 HCAPLUS
 - (5) Farber, G; Trends Biochem Sci 1990, V15, P228 HCAPLUS
 - (7) Geourjon, C; Comput Appl Biosci 1995, V11, P681 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 140 4

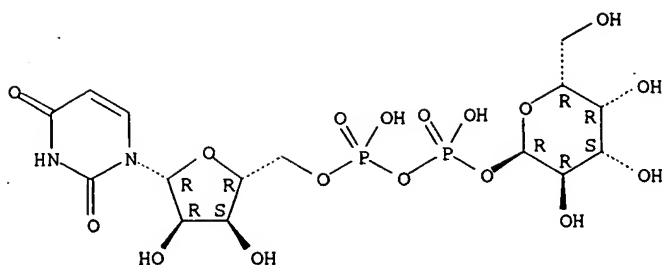
L40 ANSWER 4 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1998:777195 HCAPLUS
 DN 130:110519
 TI One-Step, Stereocontrolled Synthesis of Glycosyl 1-Phosphates,
 Uridine-5'-diphosphogalactose, and Uridine-5'-diphosphoglucose from
 Unprotected Glycosyl Donors
 AU Hanessian, Stephen; Lu, Pu-Ping; Ishida, Hideki
 CS Department of Chemistry, Universite de Montreal, Montreal, H3C 3J7, Can.
 SO J. Am. Chem. Soc. (1998), 120(51), 13296-13300
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 130:110519
 AB The reaction of 2-(1,2-trans-glycopyranosyloxy)-3-methoxypyridines (MOP
 glycosides) with phosphoric acid leads to the corresponding
 1,2-cis-1-phosphates in good yield and excellent stereoselectivity.
 1-Phosphate esters of .alpha.-D-glucopyranose, .alpha.-D-galactopyranose,
 and 2-azido-2-deoxy-.alpha.-D-galactopyranose were thus prepd. without
 recourse to protective groups. In the L-fucose series, the major product
 was the .alpha.-L-fucosyl 1-phosphate. An alternative method that relies
 on neighboring group participation allowed the prepn. of a protected
 .beta.-L-fucosyl 1-phosphate. Reaction of unprotected
 .beta.-D-glucopyranosyloxy and .beta.-D-galactopyranosyloxy MOP donors
 with uridine diphosphoric acid gave UDP-Glc and UDP-Gal with preponderance
 of the desired .alpha.-anomeric configuration.
 IT 133-89-1P 2956-16-3P
 RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP
 (Preparation)
 (one-step stereocontrolled prepn. of **glycosyl** phosphates,
 uridine diphosphogalactose and uridine diphosphoglucose from
 unprotected **glycosyl donors**)
 RN 133-89-1 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2956-16-3 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



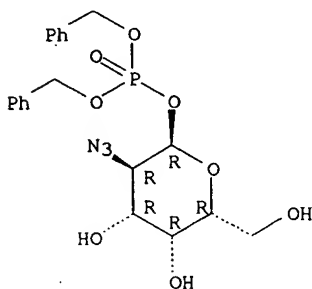
IT 219751-63-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (one-step stereocontrolled prepn. of **glycosyl** phosphates,
 uridine diphosphogalactose and uridine diphosphoglucose from
 unprotected **glycosyl donors**)

RN 219751-63-0 HCAPLUS

CN .alpha.-D-Galactopyranose, 2-azido-2-deoxy-, 1-(bis(phenylmethyl)
 phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 24333-03-7P 35946-79-3P 38099-40-0P

90357-92-9P 138552-47-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (one-step stereocontrolled prepn. of **glycosyl** phosphates,
 uridine diphosphogalactose and uridine diphosphoglucose from
 unprotected **glycosyl donors**)

RN 24333-03-7 HCAPLUS

CN .alpha.-L-Galactopyranose, 6-deoxy-, 1-(dihydrogen phosphate), compd. with
 cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

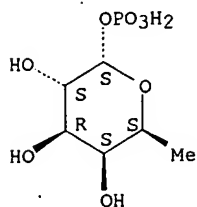
CM 1

CRN 40591-52-4

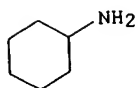
CMF C6 H13 O8 P

CDES 5:A-L-GALACTO

Absolute stereochemistry.

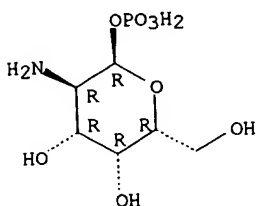


CM 2

CRN 108-91-8
CMF C6 H13 N

RN 35946-79-3 HCAPLUS
CN .alpha.-D-Galactopyranose, 2-amino-2-deoxy-, 1-(dihydrogen phosphate)
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

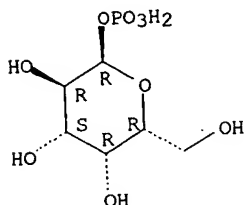


RN 38099-40-0 HCAPLUS
CN .alpha.-D-Galactopyranose, 1-(dihydrogen phosphate), compd. with
cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

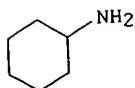
CRN 2255-14-3
CMF C6 H13 O9 P
CDES 5:A-D-GALACTO

Absolute stereochemistry.



CM 2

CRN 108-91-8
CMF C6 H13 N

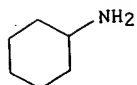


RN 90357-92-9 HCAPLUS
CN .alpha.-D-Glucopyranose, 1-(dihydrogen phosphate), compd. with
cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

SEARCHED BY SUSAN HANLEY 305-4053

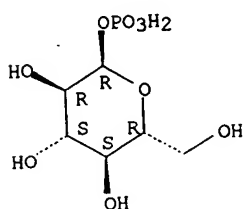
CRN 108-91-8
CMF C6 H13 N



CM 2

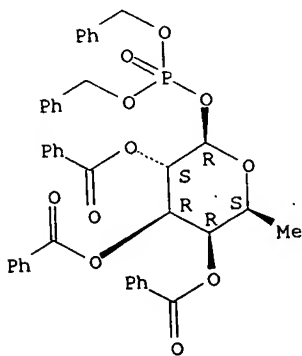
CRN 59-56-3
CMF C6 H13 O9 P
CDES 5:A-D-GLUCO

Absolute stereochemistry.



RN 138552-47-3 HCAPLUS
CN .beta.-L-Galactopyranose, 6-deoxy-, 2,3,4-tribenzoate 1-[bis(phenylmethyl)phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 43

RE

- (1) Abraham, H; J Biol Chem 1969, V244, P545 HCAPLUS
 - (2) Adelhorst, K; Carbohydr Res 1993, V242, P69 HCAPLUS
 - (3) Arlt, M; J Org Chem 1995, V60, P14 HCAPLUS
 - (4) Baisch, G; Bioorg Med Chem 1997, V5, P383 HCAPLUS
 - (6) Chappell, M; Tetrahedron 1997, V53, P11109 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 122 1

L22: ANSWER 1 OF 5 HCAPLUS, COPYRIGHT 2000 ACS

AN 2000:42528 HCAPLUS

DN 132:247859

TI Glycosyl fluorides can function as substrates for nucleotide phosphosugar-dependent glycosyltransferases

AU Loughheed, Brenda; Ly, Hoa D.; Wakarchuk, Warren W.; Withers, Stephen G.

CS Department of Chemistry, University of British Columbia, Vancouver, BC, V6T 1Z1, Can.

SO J. Biol. Chem. (1999), 274(53), 37717-37722

CODEN: JBCHA3; ISSN: 0021-9258

PB American Society for Biochemistry and Molecular Biology

DT Journal

LA English

AB .alpha.-Galactosyl fluoride is shown to function as a substrate, in place of uridine-5'-diphosphogalactose, for the .alpha.-galactosyltransferase from *Neisseria meningitidis*. The reaction only occurs in the presence of catalytic quantities of UDP. In the presence of galactosyl acceptors, the expected oligosaccharide product is formed in essentially quant. yields, reaction having been performed on multi-milligram scales. In the absence of a suitable acceptor, the enzyme synthesizes uridine-5'-diphosphogalactose, as demonstrated through a coupled assay in which uridine-5'-diphosphogalactose is converted to uridine-5'-diphosphoglucuronic acid with conversion of NAD to NADH. These glycosyl fluoride substrates therefore offer the potential of an inexpensive alternative donor substrate in the synthesis of oligosaccharides as well as a means of generating steady state concns. of nucleotide diphosphate sugars for in situ use by other enzymes. Further, they should prove valuable as mechanistic probes.

IT 2956-16-3, Uridine-5'-diphosphogalactose

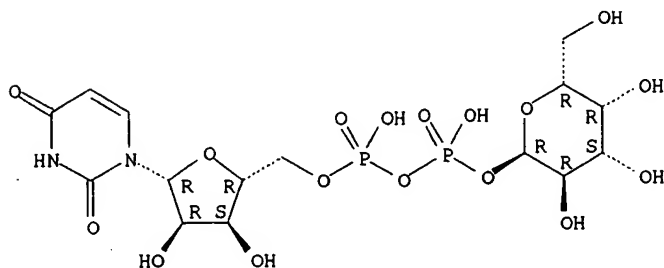
RL: MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)

(glycosyl fluorides can function as **substrates** for nucleotide phosphosugar-dependent **glycosyltransferases**)

RN 2956-16-3 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 42

RE

(1) Bell, J; J Biol Chem 1976, V251, P3003 HCAPLUS

(3) Boons, G; Tetrahedron 1996, V52, P1095 HCAPLUS

(4) Campbell, J; Biochem J 1997, V326, P929 HCAPLUS

(5) Charnock, S; Biochemistry 1999, V38, P6380 HCAPLUS

(6) Danishefsky, S; Angew Chem Int Ed 1996, V35, P1380 HCAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

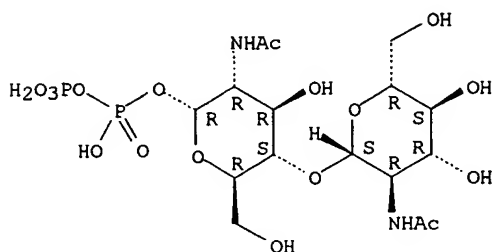
=> d bib abs hitstr 122 2

L22 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2000 ACS
 AN 1999:581401 HCAPLUS
 DN 131:351639
 TI Dolichylpyrophosphate oligosaccharides: large-scale isolation and evaluation as oligosaccharyltransferase substrates. [Erratum to document cited in CA130:352535]
 AU Gibbs, B. S.; Coward, J. K.
 CS Interdepartmental Program Medicinal Chem., College Pharmacy, Dep. Chem., University Michigan, Ann Arbor, MI, USA
 SO Bioorg. Med. Chem. (1999), 7(9), 2121
 CODEN: BMECEP; ISSN: 0968-0896
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB In Fig. 1, the initial extn. of glycopeptide product from the assay mixt. is done with CHCl₃:CH₃OH (3:2, vol./vol.). In Fig. 2, the legend should be cor. to show the concns. of the fixed substrates, Dol-PP-OS and tripeptide, in units of .mu.M. The Fig. 2 printed in the paper is for data obtained with a microsomal prepn. of the OST complex. However, Table 1 refers to data obtained for a solubilized prepn. and, therefore, is inconsistent with the data shown in the figure. Satn. kinetics data obtained with the solubilized prepn., consistent with those given in Table 1, lines 2 and 5, are given.
 IT 59694-82-5
 RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); BIOL (Biological study)
 (reaction of in the synthesis of tripeptide **substrate** for **glycosylation** using dolichyl-pyrophosphate oligosaccharides as oligosaccharyl-transferase substrates (Erratum))
 RN 59694-82-5 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2-(acetylamino)-4-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-2-deoxy-, 1-ester with dolichol (trihydrogen diphosphate) (9CI) (CA INDEX NAME)

CM 1

CRN 200267-49-8
 CMF C16 H30 N2 O17 P2

Absolute stereochemistry.



CM 2

CRN 11029-02-0
 CMF Unspecified
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr 122 3

L22 .ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:235767 HCAPLUS

DN 130:352535

TI Dolichylpyrophosphate oligosaccharides: large-scale isolation and evaluation as oligosaccharyltransferase substrates

AU Gibbs, Barbara S.; Coward, James K.

CS Interdepartmental Program in Medicinal Chemistry, College of Pharmacy, Department of Chemistry, University of Michigan, Ann Arbor, MI, 48109, USA

SO Bioorg. Med. Chem. (1999), 7(3), 441-447

CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier Science Ltd.

DT Journal

LA English

AB Oligosaccharyltransferase (OST) catalyzes the transfer of a branched oligosaccharide from a dolichyl-pyrophosphate oligosaccharide (Dol-PP-OS) to the asparagine of a nascent polypeptide chain in vivo and peptide substrates in vitro. Here we report the isolation and purifn. of Dol-PP-OS from bovine pancreas and thyroid. Steady-state kinetic parameters comparing the two Dol-PP-OS to a shorter dolichyl-pyrophosphate disaccharide (DolPP-DS) previously synthesized in our lab. are reported. These were detd. for Dol-PP-OS, Dol-PP-DS, and the tripeptide Bz-Asn-Leu-Thr-NH₂ with solubilized OST and, for the first time, satn. kinetics were obsd. for all substrates. The kinetic data provide a basis for analyzing quant. the individual contributions of oligosaccharide donor and peptide acceptor substrates to OST-catalyzed glycosylation.

IT 59694-82-5

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);

BIOL (Biological study)

(reaction of in the synthesis of tripeptide **substrate** for **glycosylation** using dolichyl-pyrophosphate oligosaccharides as oligosaccharyl-transferase substrates)

RN 59694-82-5 HCAPLUS

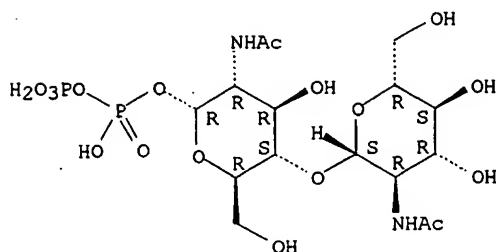
CN .alpha.-D-Glucopyranose, 2-(acetylamino)-4-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-2-deoxy-, 1-ester with dolichol (trihydrogen diphosphate) (9CI) (CA INDEX NAME)

CM 1

CRN 200267-49-8

CMF C16 H30 N2 O17 P2

Absolute stereochemistry.



CM 2

CRN 11029-02-0

CMF Unspecified

CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RE.CNT 42

RE

SEARCHED BY SUSAN HANLEY 305-4053

Page 3

- (2) Badet, J; Carbohydr Res 1988, V178, P49 HCAPLUS
 - (3) Bause, E; Biochem J 1981, V195, P639 HCAPLUS
 - (4) Bause, E; Biochem J 1983, V209, P331 HCAPLUS
 - (5) Bause, E; Biochem J 1995, V312, P979 HCAPLUS
 - (6) Chalifour, R; J Biol Chem 1988, V263, P15673 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 122 4

L22 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2000 ACS

AN 1999:83616 HCAPLUS

DN 130:196907

TI A high-yield, enzymic synthesis of GDP-D-[3H]arabinose and GDP-L-[3H]fucose

AU Mengeling, Brenda J.; Turco, Salvatore J.

CS Department of Biochemistry, University of Kentucky Medical Center, Lexington, KY, 40536-0298, USA

SO Anal. Biochem. (1999), 267(1), 227-233

CODEN: ANBCA2; ISSN: 0003-2697

PB Academic Press

DT Journal

LA English

AB For assays involving glycosyltransferases or transporters, several GDP-sugars are either com. unavailable or expensive. We describe an enzymic synthesis of GDP-D-[3H]arabinose and GDP-L-[3H]fucose that yields 66-95% nucleotide-sugar from the appropriate radiolabeled sugar in less than 30 min. The coupled reaction requires Mg²⁺, ATP, and GTP along with the appropriate radioactive monosaccharide, sugar-1-kinase, and pyrophosphorylase. The latter two activities are present in a cytosolic fraction of *Crithidia fasciculata*, which is easily grown at room temp. in simple culture medium without serum or added CO₂. Addn. of com. yeast inorg. pyrophosphatase shifts the equil. of the pyrophosphorylase reaction toward nucleotide-sugar formation. To verify that these nucleotide-sugars are biol. active, we tested their ability to serve as substrates for glycosyltransferases. GDP-L-[3H]fucose functions as the donor substrate for recombinant human fucosyltransferase V, and GDP-D-[3H]arabinose serves as the donor substrate for the arabinosyltransferase activities present in *Leishmania major* microsomes. (c) 1999 Academic Press.

IT 220834-69-5P 220834-70-8P

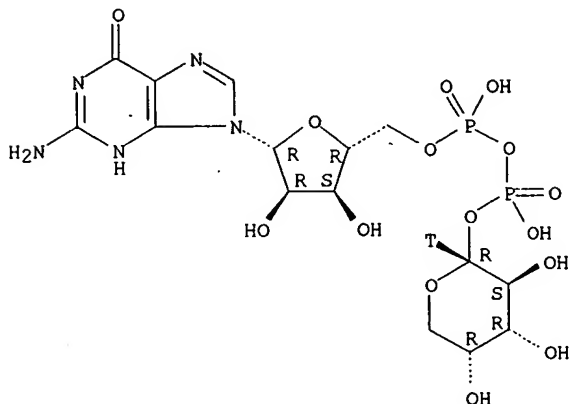
RL: BPN (Biosynthetic preparation); BPR (Biological process); BIOL (Biological study); PREP (Preparation); PROC (Process)

(enzymic synthesis of GDP-D-[3H]arabinose and GDP-L-[3H]fucose as **substrates for glycosyltransferases**)

RN 220834-69-5 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-(.alpha.-D-arabinopyranosyl-1-C-t) ester (9CI) (CA INDEX NAME)

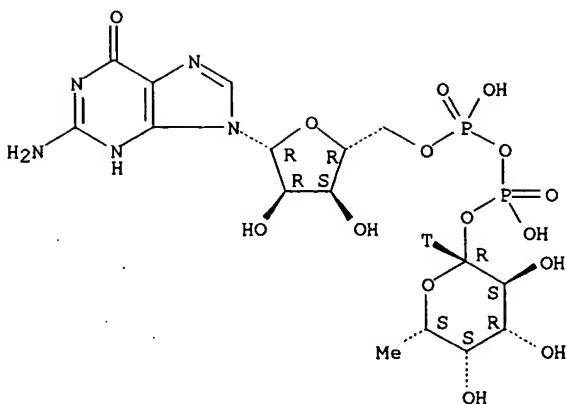
Absolute stereochemistry.



RN 220834-70-8 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-galactopyranosyl-1-C-t) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 18

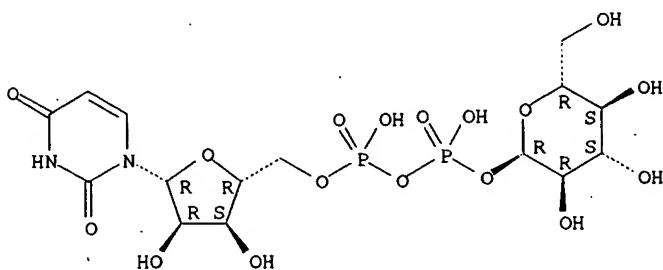
RE

- (1) Carver, M; J Biol Chem 1991, V266, P10974 HCAPLUS
 - (2) Descoteaux, A; Methods in Molecular Genetics 1994, V3, P22 HCAPLUS
 - (3) Descoteaux, A; Mol Biochem Parasitol 1998, V94, P27 HCAPLUS
 - (4) Gorin, P; J Protozool 1979, V26, P473 HCAPLUS
 - (5) Legault, D; J Biol Chem 1995, V270, P20987 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 122 5

L22 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2000 ACS
 AN 1995:398256 HCAPLUS
 DN 122:181521
 TI High-performance liquid chromatographic assay of glycosyl transferases using flavonoids as substrate
 AU Pace, Mario; Agnellini, Dario; Gardana, Claudio; Mauri, Pier Luigi; Pietta, Pier Giorgio
 CS Dipartimento di Scienze e Tecnologie Biomediche, Sez. Chimica Organica, Universita di Milano, Via G. Celoria 2, Milan, 20133, Italy
 SO J. Chromatogr., A (1995), 691(1-2), 331-6
 CODEN: JCRAEY
 DT Journal
 LA English
 AB An HPLC method for the detn. of glycosyl transferase activity, alternative to the radioactive assay, is proposed. The method is suitable for following the kinetics of consecutive enzymes that yield monoglucosides, diglucosides and triglucosides, as demonstrated with a pea seedling ext. contg. a mixt. of three glucosyl transferases using flavonoids as substrate and UDP-glucose as carbohydrate donor. In this instance the HPLC detn. of the three glucosides could be accomplished after sepn. of the aglycons by solid extn. on a Sep-Pak C18 microcolumn. After isolation of the enzyme catalyzing the prodn. of the monoglucoside of quercetin (isoquercitrin) or kaempferol (astragalin), the kinetics of the reaction were detd. by HPLC, following both the increase of the product and the disappearance of the substrate. The increasing amts. of isoquercitrin and astragalin were consistent with the decrease in the amt. of aglycon measured after direct injection of the reaction mixt. into the HPLC system and its elution with a less polar solvent.
 IT 133-89-1, UDP-glucose
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (high-performance liq. chromatog. assay of **glycosyl** transferases using flavonoids as **substrate**)
 RN 133-89-1 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 140 1

L40 ANSWER 1 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 2000:356779 HCAPLUS

DN 133:2034

TI Fluorescence-labeled sugar nucleotide derivatives, their use, and determination of glycosyltransferases by fluorescence resonance energy transfer method

IN Nishimura, Shinichiro; Washiya, Kimihito

PA Toyobo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000143690	A2	20000526	JP 1998-326902	19981117

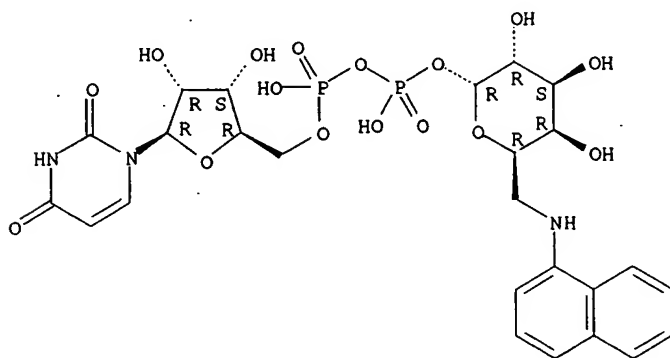
AB Sugar nucleotide derivs., in which 6-position OH of the sugar moiety is linked with a fluorescent substance, is useful as sugar donors in glycosyl transfer reaction. Activities of glycosyltransferases are detd. by a fluorescence resonance energy transfer method using (a) oligosaccharides having a fluorescent substance at the reducing end through a spacer or fluorescence-labeled glycopeptides or glycolipids as sugar acceptors and the above donors. The method makes high-sensitivity measurement of glycosyltransferase possible without sepg. the enzymic reaction products, e.g. by HPLC. Activity of .beta.1,4-galactosyltransferase is detd. using uridine-5'-[6-deoxy-6-N-(1-naphthyl)-.alpha.-D-galactopyranosyl] diphosphate disodium salt (prepn. given) as a donor and 3-[N-(5-(N,N-dimethylamino)-1-naphthalenesulfonyl)amino]propyl 2-acetamido-3,4,6-tri-O-acetyl-2-deoxy-.beta.-D-glucopyranoside (prepn. given) as an acceptor.

IT 270923-30-3P 270923-34-7P
 RL: ARG (Analytical reagent use); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (prepn. of fluorescence-labeled sugar nucleotide derivs. as donors for measurement of glycosyl transferase activity by fluorescence resonance energy transfer method)

RN 270923-30-3 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-[6-deoxy-6-[(1-naphthalenylamino)-.alpha.-D-galactopyranosyl] ester, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

RN 270923-34-7 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-[6-deoxy-6-[(1-naphthalenylmethyl)amino]-.alpha.-D-galactopyranosyl] ester, disodium salt

SEARCHED BY SUSAN HANLEY 305-4053

Page 1

=> d bib abs hitstr 117 1

LI7 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 2000:210201 HCAPLUS

DN 132:251425
 TI Synthetic peptides, conjugation reagents and methods
 IN Bertozzi, Carolyn; Marcaurelle, Lisa; Rodriguez, Elena
 PA Regents of the University of California, USA
 SO PCT Int. Appl., 43 pp.
 CODEN: PIXXD2

DT Patent
 LA English

FAN	CNT 1	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO	2000017226	A1	20000330	WO 1999-US22129	19990923

W: AU, CA, JP
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
 PT, SE
 PRAI US 1998-101494 19980923
 OS MAREPAT 132:251425
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention provides methods and compns. useful for making synthetic peptide conjugates comprising structure I. (R = lower (un)substituted alkyl, O, NH, S; P = amine protection group). In more particular embodiments, the compns. comprise .alpha.-amine protected 4,5-dehydroleucine or .alpha.-amine protected (2S)-aminolevulinic acid where P is Fmoc (9-fluorenylmethoxycarbonyl). These compds. may be incorporated into synthetic peptides using std. Fmoc-based solid-phase methods to give ketone-contg. peptides which can be modified with an O- or N-linked glycoconjugate, or a detectable label. Thus, oxime-linked drosocin neo-glycopeptide (II) was prepd. and found to be four-fold more potent in blocking bacterial growth (IC50 = 0.16 +/- 0.04 .mu.M) than un-glycosylated drosocin (IC50 = 0.63 +/- 0.05), and similar in potency to native drosocin (IC50 = 0.10 +/- 0.02). Also, a strategy for convergent assembly of O-linked glycopeptide analogs using the principle of chemoselective ligation is described and demonstrated in the synthesis of chemo-selectively ligated analogs of antibacterial glycopeptide drosocin (e.g. III, IC50 = 0.12 +/- 0.02).

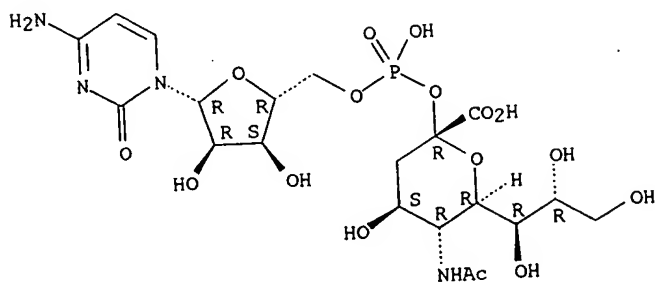
IT 3063-71-6 15839-70-0, GDP-fucose

RL: RCT (Reactant)
 (solid-phase prepn. of ketone-contg. peptides for site-specific conjugation)

RN 3063-71-6 HCAPLUS

CN .beta.-Neuraminic acid, N-acetyl-, 2-(hydrogen 5'-cytidylate) (9CI) (CA INDEX NAME)

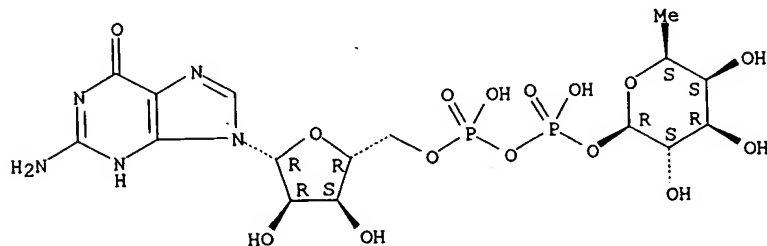
Absolute stereochemistry.



SEARCHED BY SUSAN HANLEY 305-4053

RN 15839-70-0 HCAPLUS
 CN Guanosine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 4

RE

- (1) Lisa, A; TETRAHEDRON LETTERS 1998, V39, P7279
- (2) Paul, M; J CHEM SOC PERKIN TRANS 1983, V1, P723
- (3) Schmidt, U; J CHEM SOC, CHEM COMMUN 1992, P529 HCAPLUS
- (4) Yu, Z; J AM CHEM SOC 1996, V118, P5846 HCAPLUS

=> d bib abs hitstr 117 2

L17 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 2000:31343 HCAPLUS
 DN 132:83727
 TI Solid support matrixes containing a toxin binding oligosaccharide
 IN Hindsgaul, Ole; Nilsson, Ulf J.
 PA Synsorb Biotech, Inc., Can.
 SO U.S., 16 pp., Cont.-in-part of U.S. Pat. No. 5,846,943.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6013634	A	20000111	US 1998-53785	19980402
	US 5846943	A	19981208	US 1996-746393	19961108
	ZA 9803690	A	19990204	ZA 1998-3690	19980430
PRAI	US 1996-746393		19961108		
	US 1998-53785		19980402		

OS MARPAT 132:83727

AB Disclosed are novel solid support matrixes having a toxin-binding oligosaccharide covalently attached to a solid support through a linking arm which has at least 5 atoms sepg. the oligosaccharide from the solid support. The disclosed solid support matrixes are useful for neutralizing toxins from disease-causing microorganisms. Chromsorb P was silylated and treated with p-nitrophenyl chloroformate, diisopropylethylamine, then 1,6-hexanediamine, and the lactose to give a solid support matrix.

IT 2956-16-3, Udp-galactose

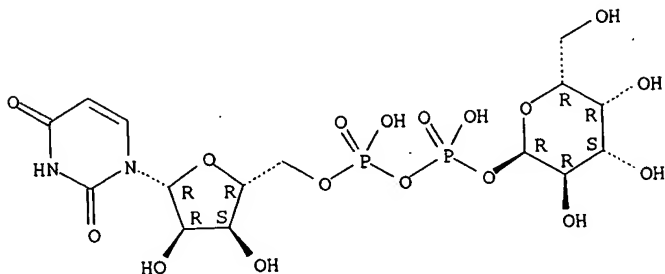
RL: RCT (Reactant)

(solid support matrixes contg. a toxin binding oligosaccharide)

RN 2956-16-3 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 24

RE

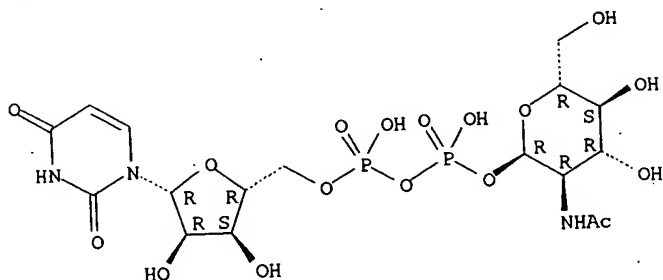
- (1) Anon; EP 0352766 1990 HCAPLUS
 - (2) Anon; WO 93/08209 1993 HCAPLUS
 - (4) Anon; WO 96/39189 1996 HCAPLUS
 - (5) Armstrong, G; J Infect Dis 1991, V164, P1160 HCAPLUS
 - (8) Blanken; J Biol Chem 1985, V260, P12927 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 117 3

L17 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1999:607773 HCAPLUS
 DN 131:351587
 TI Enzymatic glycosylation of reducing oligosaccharides linked to a solid phase or a lipid via a cleavable squarate linker
 AU Blixt, O.; Norberg, T.
 CS Department of Chemistry, Swedish University of Agricultural Sciences, Uppsala, S-750 07, Swed.
 SO Carbohydr. Res. (1999), 319(1-4), 80-91
 CODEN: CRBRAT; ISSN: 0008-6215
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB Reducing oligosaccharides were converted into their corresponding glycosylamines, and these were reacted with 3,4-diethoxy-3-cyclobuten-1,2-dione (squaric acid di-Et ester). The resulting derivs. could be linked to amino-functionalized lipids, solids, or proteins. Treatment of the obtained lipid or solid conjugates with aq. bromine or, alternatively, with ammonia-ammonium borate cleaved the linkage and regenerated the oligosaccharide glycosylamines, which were in turn rapidly hydrolyzed to the reducing oligosaccharides. To demonstrate the usefulness of this linkage in enzymic oligosaccharide synthesis, lactose was linked to a lipid or a solid phase, the obtained conjugates were then subjected to two enzymic glycosylations (either consecutively or 'one-pot'). The resulting materials were then cleaved to give, in both cases, the expected reducing tetrasaccharide (lacto-N-neotetraose) in good yield.

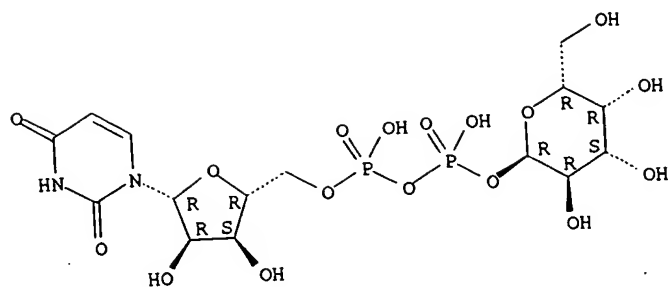
IT 528-04-1 2956-16-3
 RL: RCT (Reactant)
 (enzymic glycosylation of reducing oligosaccharides linked to a **solid phase** or a lipid via a cleavable squarate linker)
 RN 528-04-1 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-[2-(acetylamino)-2-deoxy-.alpha.-D-glucopyranosyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2956-16-3 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 15

RE

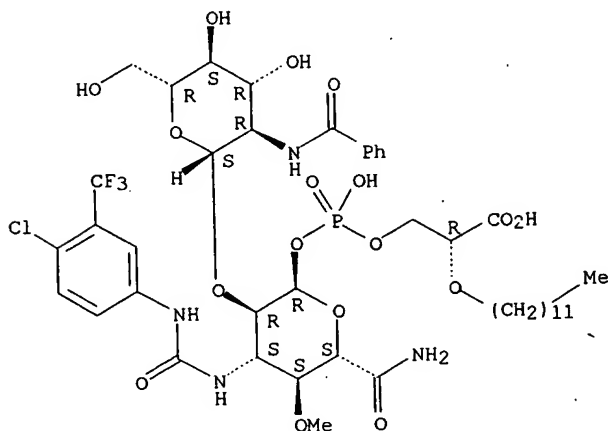
- (2) Blixt, O; J Carbohydr Chem 1997, V16(2), P143 HCAPLUS
- (3) Blixt, O; J Org Chem 1998, V63, P2705 HCAPLUS
- (4) Dua, V; Anal Biochem 1983, V133, P1 HCAPLUS
- (6) Kallin, E; Glycoconjugate J 1986, V3, P311 HCAPLUS
- (7) Kallin, E; J Carbohydr Chem 1989, V8, P597 HCAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 117 4

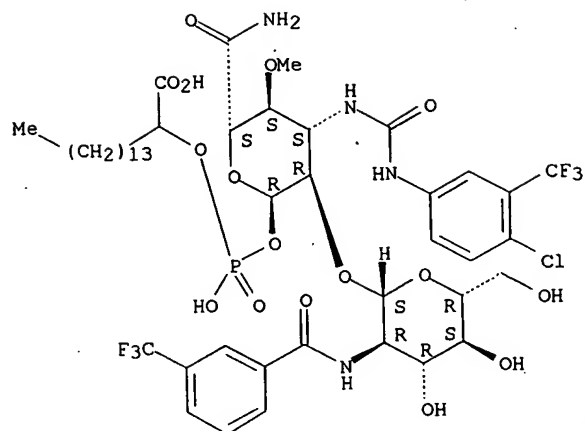
L17 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1999:484866 HCAPLUS
 DN 131:243481
 TI Discovery of Novel Disaccharide Antibacterial Agents Using a Combinatorial Library Approach
 AU Sofia, Michael J.; Allanson, Nigel; Hatzenbuehler, Nicole T.; Jain, Rakesh; Kakarla, Ramesh; Kogan, Natan; Liang, Rui; Liu, Dashan; Silva, Domingos J.; Wang, Huiming; Gange, David; Anderson, Jan; Chen, Anna; Chi, Feng; Dulina, Richard; Huang, Buwen; Kamau, Muthoni; Wang, Chunguang; Baizman, Eugene; Branstrom, Arthur; Bristol, Neil; Goldman, Robert; Han, Kiho; Longley, Clifford; Midha, Sunita; Axelrod, Helena R.
 CS Intercardia Research Labs, Intercardia Inc., Cranbury, NJ, 08512, USA
 SO J. Med. Chem. (1999), 42(17), 3193-3198
 CODEN: JMCMAR; ISSN: 0022-2623
 PB American Chemical Society
 DT Journal
 LA English
 AB We have shown that using a combinatorial library strategy and the moenomycin A disaccharide as a template, we were able to identify a novel class of potent inhibitors of bacterial cell wall biosynthesis that for the first time also exhibit potent antibacterial activity.
 IT 244292-41-9P 244292-42-0P 244292-43-1P
 244292-44-2P 244292-45-3P 244292-46-4P
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prepn. of disaccharide antibacterial agents using a
 combinatorial library approach)
 RN 244292-41-9 HCAPLUS
 CN .alpha.-D-Glucopyranuronamide, 2-O-[2-(benzoylamino)-2-deoxy-.beta.-D-glucopyranosyl]-3-[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-3-deoxy-4-O-methyl-, 1-[(2R)-2-carboxy-2-(dodecyloxy)ethyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 244292-42-0 HCAPLUS
 CN .alpha.-D-Glucopyranuronamide, 3-[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-3-deoxy-2-O-[2-deoxy-2-[[3-(trifluoromethyl)benzoyl]amino]-.beta.-D-glucopyranosyl]-4-O-methyl-, 1-(1-carboxypentadecyl hydrogen phosphate) (9CI) (CA INDEX NAME)

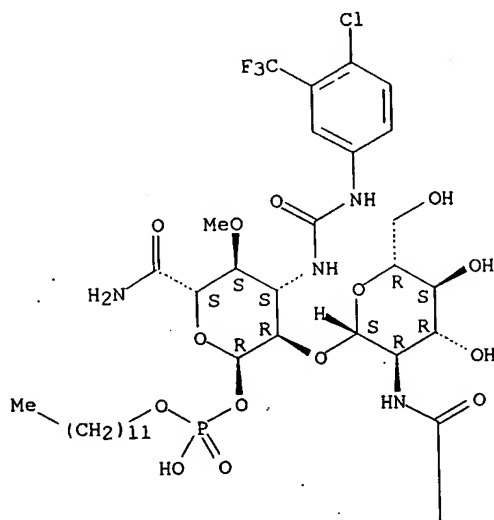
Absolute stereochemistry.



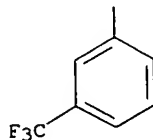
RN 244292-43-1 HCAPLUS
 CN .alpha.-D-Glucopyranuronamide, 3-[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-3-deoxy-2-O-[2-deoxy-2-[[3-(trifluoromethyl)benzoyl]amino]-.beta.-D-glucopyranosyl]-4-O-methyl-, 1-(dodecyl hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

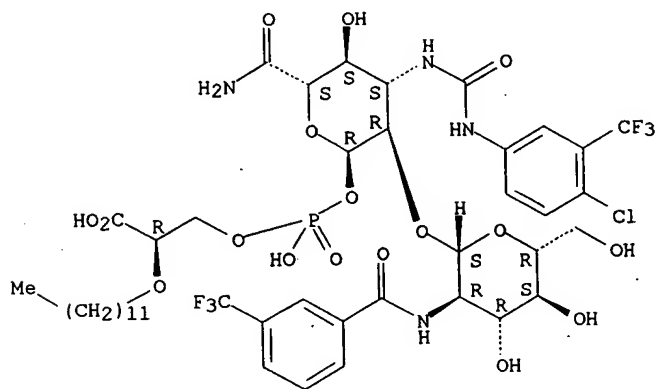


RN 244292-44-2 HCAPLUS
 CN .alpha.-D-Glucopyranuronamide, 3-[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-3-deoxy-2-O-[2-deoxy-2-[[3-(trifluoromethyl)benzoyl]amino]-.beta.-D-glucopyranosyl]-4-O-methyl-, 1-(dodecyl hydrogen phosphate) (9CI) (CA INDEX NAME)

SEARCHED BY SUSAN HANLEY 305-4053

(trifluoromethyl)phenyl]amino]carbonyl]amino]-3-deoxy-2-O-[2-deoxy-2-[[3-(trifluoromethyl)benzoyl]amino]-.beta.-D-glucopyranosyl]-, 1-[(2R)-2-carboxy-2-(dodecyloxy)ethyl hydrogen phosphate] (9CI) (CA INDEX NAME)

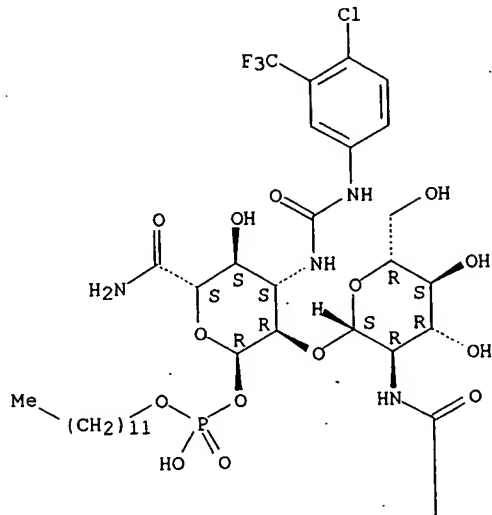
Absolute stereochemistry.



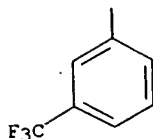
RN 244292-45-3 HCAPLUS
CN .alpha.-D-Glucopyranuronamide, 3-[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-3-deoxy-2-O-[2-deoxy-2-[[3-(trifluoromethyl)benzoyl]amino]-.beta.-D-glucopyranosyl]-, 1-(dodecyl hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



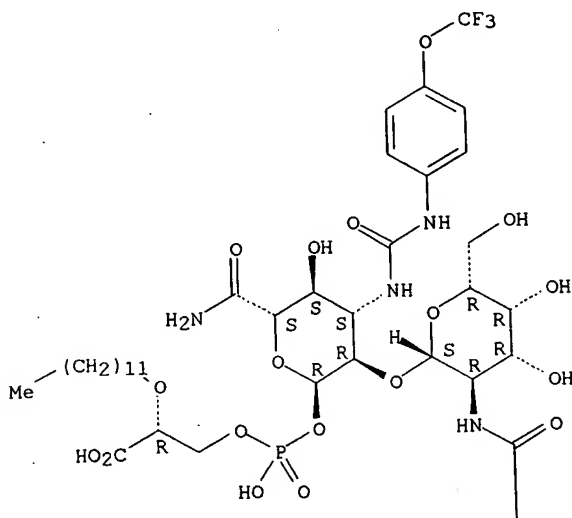
PAGE 2-A



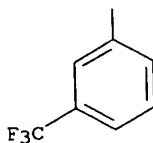
RN 244292-46-4 HCAPLUS
 CN .alpha.-D-Glucopyranuronamide, 3-deoxy-2-O-[2-deoxy-2-[[3-(trifluoromethyl)benzoyl]amino]-.beta.-D-galactopyranosyl]-3-[[[4-(trifluoromethoxy)phenyl]amino]carbonyl]amino]-, 1-[(2R)-2-carboxy-2-(dodecyloxy)ethyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RE.CNT 29

RE

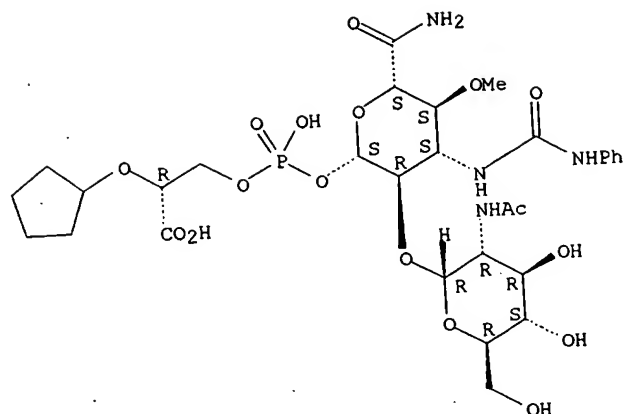
- (1) Allen, N; Antimicrob Agents Chemother 1996, V40, P2356 HCAPLUS
 - (2) Allen, N; FEMS Microbiol Lett 1992, V98, P109 HCAPLUS
 - (4) Davies, J; Science 1994, V264, P375 HCAPLUS
 - (5) Donnerstag, A; Tetrahedron 1995, V51, P1931 HCAPLUS
 - (8) Hessler-Klintz, M; Tetrahedron 1993, V49, P7667 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 117 5

L17 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1999:355782 HCAPLUS
 DN 131:5477
 TI A combinatorial library of moenomycin analogs as antibacterial agents
 IN Allanson, Nigel Mark; Chan, Tin Yau; Hatzenbuehler, Nicole T.; Jain, Rakesh
 K.; Kakarla, Ramesh; Liang, Rui; Liu, Dashan; Silva, Domingos; Sofia,
 Michael
 PA Intercardia, Inc., USA
 SO PCT Int. Appl., 160 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

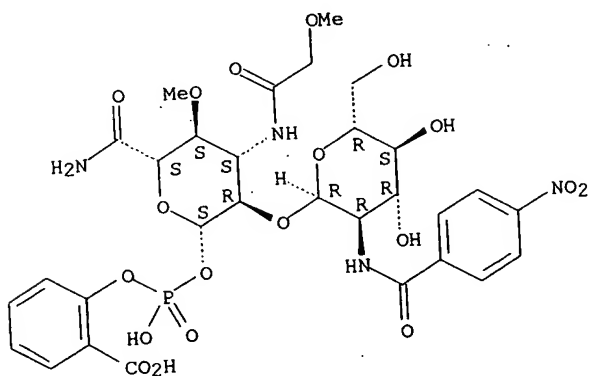
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9926956	A1	19990603	WO 1998-US24406	19981117
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9915879	A1	19990615	AU 1999-15879	19981117
PRAI	US 1997-975229		19971121		
	WO 1998-US24406		19981117		
OS	MARPAT 131:5477				
AB	A combinatorial chem. library of compds. structurally related to the moenomycin class of antibiotics has formula DAPR wherein D is a donor mono- or disaccharide, A is an acceptor monosaccharide, and P-R is a lipophosphoglycerate mimetic group. Members of the library have a glycosidic linkage between the anomeric carbon of D and the C2 carbon of A, and the D-A moiety is in turn covalently linked through the anomeric carbon of A to the P-R group. Members of the library exhibit their greatest structural diversity in terms of substitutions occurring at the C3 position of the A residue, substitutions at the C2 position of the D residue, and different P-R groups used in assembling the compds. Members of the library are preferably synthesized by solid phase techniques involving stepwise coupling of the resp. units to a support, functionalizing the A and/or D saccharides either before or after immobilizing them on the support, and cleaving the assembled compds. from the support. Preferred functionalities attached to the sugar residues are amides, carbamates, ureas, sulfonamides, substituted amines, esters, carbonates, and sulfates. Exemplary P-R groups are derivs. of homoserine, glyceric acid, salicylates and mandelic acid. Thus, Ph 3-azido-3-deoxy-4-O-benzoyl-1-thio-.beta.-D-glucopyranosiduronic acid was prep'd. Members of the library can be screened for anti-microbial activity by contacting them with a culture of microbes and monitoring the growth rate of the microbes.				
IT	225243-08-3P 225243-09-4P RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (combinatorial library of moenomycin analogs as antibacterial agents)				
RN	225243-08-3 HCAPLUS				
CN	.beta.-D-Glucopyranuronamide, 2-O-[2-(acetylamino)-2-deoxy-.alpha.-D-glucopyranosyl]-3-deoxy-4-O-methyl-3-[[[(phenylamino)carbonyl]amino]-, 1-[(2R)-2-carboxy-2-(cyclopentyloxy)ethyl hydrogen phosphate] (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



RN 225243-09-4 HCAPLUS
 CN .beta.-D-Glucopyranuronamide, 3-deoxy-2-O-[2-deoxy-2-[(4-nitrobenzoyl)amino]-3-[(methoxyacetyl)amino]-4-O-methyl-, 1-(2-carboxyphenyl hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 2

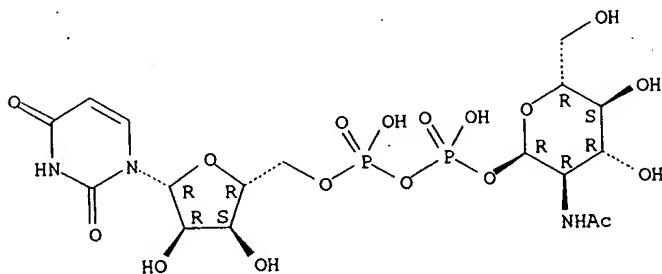
RE

(1) Lindner; US 3674866 A 1972 HCAPLUS
 (2) Weltzel; US 4684626 A 1987

=> d bib abs hitstr 117 6

L17 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1998:782618 HCAPLUS
 DN 130:162689
 TI Engineering a cell-free murein biosynthetic pathway: combinatorial enzymology in drug discovery
 AU Wong, Kenny K.; Kuo, David W.; Chabin, Renee M.; Fournier, Carole; Gegnas, Laura D.; Waddell, Sherman T.; Marsilio, Frank; Leiting, Barbara; Pompliano, David L.
 CS Department of Biochemistry, Merck Research Laboratories, Rahway, NJ, 07065-0900, USA
 SO J. Am. Chem. Soc. (1998), 120(51), 13527-13528
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 AB The authors have developed a novel murein pathway assay that can efficiently interrogate an ensemble of validated antibacterial targets simultaneously using limited quantities of test compds. This assay will help pinpoint the enzymic targets of antibacterial compds. Together with rapid analog synthesis, the ability to screen enzymes "combinatorially" will accelerate the discovery of the next generations of antibiotics.
 IT 528-04-1 16124-22-4 70222-94-5
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (engineering a cell-free murein biosynthetic pathway-combinatorial enzymol. in drug discovery)
 RN 528-04-1 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-(2-(acetilamino)-2-deoxy-.alpha.-D-glucopyranosyl) ester (9CI) (CA INDEX NAME)

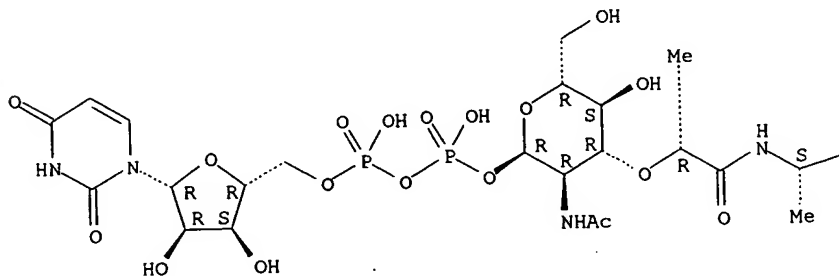
Absolute stereochemistry.



RN 16124-22-4 HCAPLUS
 CN D-Alanine, N-(N-acetyl-.alpha.-muramoyl)-L-alanyl-D-.gamma.-glutamyl-6-carboxylsyl-D-alanyl-, 1'.fwdarw.P'-ester with uridine 5'-(trihydrogen diphosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

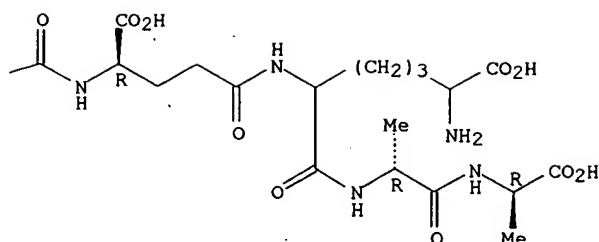
PAGE 1-A



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Page 12

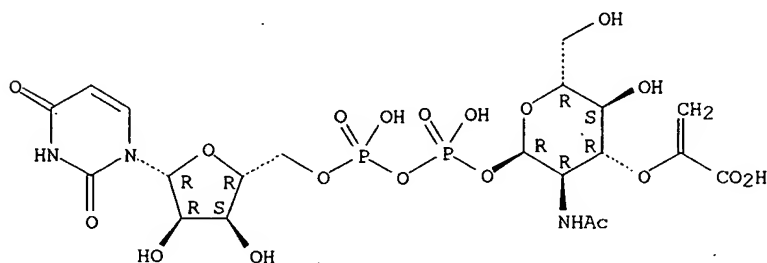
PAGE 1-B



RN 70222-94-5 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-[2-(acetylamino)-3-O-(1-carboxyethenyl)-2-deoxy-.alpha.-D-glucopyranosyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 16

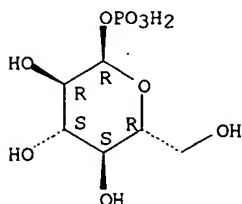
RE

- (2) Bugg, T; Nat Prod Rep 1992, V9, P199 HCAPLUS
 - (3) Burns, J; Trends Biochem Sci 1985, V10, P16 HCAPLUS
 - (4) Eveland, S; Biochemistry 1997, V36, P6223 HCAPLUS
 - (5) Gadebusch, H; Crit Rev Biotechnol 1992, V12, P225 HCAPLUS
 - (6) Gegnas, L; Bioorg Med Chem Lett 1998, V8, P1643 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 117 7

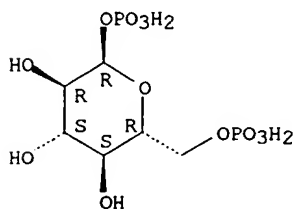
L17 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1998:524034 HCAPLUS
 DN 129:227611
 TI Cleanup and analysis of sugar phosphates in biological extracts by using solid-phase extraction and anion-exchange chromatography with pulsed amperometric detection
 AU Smits, Hans Peter; Cohen, Arie; Buttler, Torbjorn; Nielsen, Jens; Olsson, Lisbeth
 CS Center for Process Biotechnology, Department of Biotechnology, Technical University of Denmark, Lyngby, DK-2800, Den.
 SO Anal. Biochem. (1998), 261(1), 36-42
 CODEN: ANBCA2; ISSN: 0003-2697
 PB Academic Press
 DT Journal
 LA English
 AB A cleanup method based on anion-exchange solid-phase extn. (SPE) was developed to render biol. exts. suitable for the anal. of hexose phosphates with a modified anion-exchange chromatog. method and pulsed amperometric detection. The method was applied to cell exts. of *Saccharomyces cerevisiae* obtained by using cold methanol as quenching agent and chloroform as extn. solvent. It was shown that pretreatment of the cell ext. with SPE markedly improved the quality of the liq. chromatog. anal. with recoveries of the sugar phosphates close to 100%. Furthermore, the method allowed for sample enrichment and the original extn. procedure could be simplified by implementing SPE early in the extn. protocol. (c) 1998 Academic Press.
 IT 59-56-3, .alpha.-D-Glucopyranose, 1-(dihydrogen phosphate)
 10139-18-1, Glucose-1,6-diphosphate
 RL: ANT (Analyte); ANST (Analytical study)
 (cleanup and anal. of sugar phosphates in biol. exts. by using solid-phase extn. and anion-exchange chromatog. with pulsed amperometric detection)
 RN 59-56-3 HCAPLUS
 CN .alpha.-D-Glucopyranose, 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 10139-18-1 HCAPLUS
 CN .alpha.-D-Glucopyranose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



LEE 09/413,381

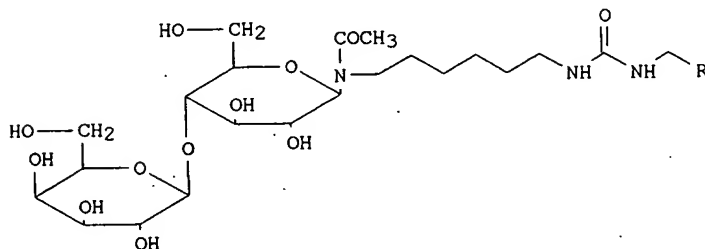
SEARCHED BY SUSAN HANLEY 305-4053

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=> d bib abs hitstr 117 8

L17 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1998:341576 HCAPLUS
 DN 129:28169
 TI Solid support matrixes containing a toxin binding oligosaccharide
 IN Hindsgaul, Ole; Nilsson, Ulf J.
 PA Synsorb Biotech, Inc., Can.
 SO PCT Int. Appl., 45 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9821218	A1	19980522	WO 1997-CA851	19971107
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	US 5846943	A	19981208	US 1996-746393	19961108
	AU 9749387	A1	19980603	AU 1997-49387	19971107
	EP 937092	A1	19990825	EP 1997-912001	19971107
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
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	WO 1997-CA851		19971107		
OS	MARPAT 129:28169				
GI					



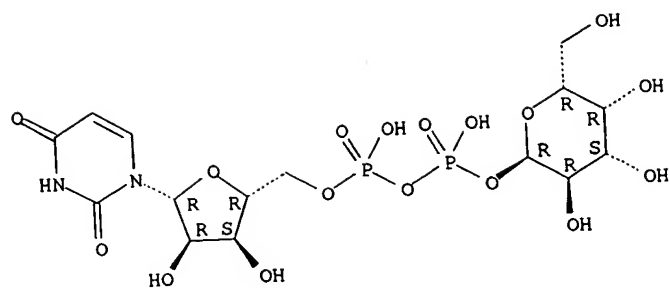
I

AB Disclosed are novel solid support matrixes having a toxin-binding oligosaccharide covalently attached to a solid support through a linking arm which has at least 8 atoms sepg. the oligosaccharide from the solid support. The disclosed solid support matrixes are useful for neutralizing toxins from disease-causing microorganisms. Thus, oligosaccharide I (R = chromosorb P) was prepd. and showed 12-20% neutralization of heat-labile toxin and cholera toxin.

IT 2956-16-3, UDP-galactose
 RL: RCT (Reactant)
 (prepn. of **solid support** matrixes contg. a toxin binding oligosaccharide)

RN 2956-16-3 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)

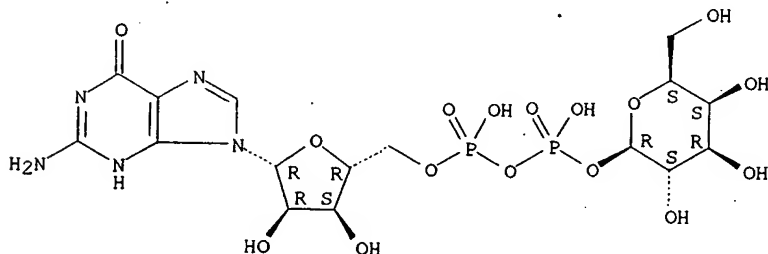
Absolute stereochemistry.



=> d bib abs hitstr 117 9

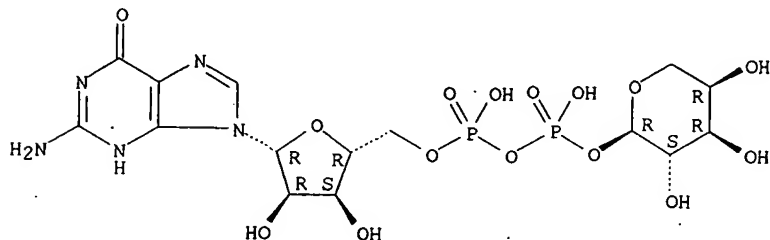
L17 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1998:250013 HCAPLUS
 DN 128:321839
 TI Enzymic synthesis of sialyl-Lewisa-libraries with two non-natural monosaccharide units
 AU Baisch, Gabi; Ohrlein, Reinhold; Streiff, Markus; Kolbinger, Frank
 CS Novartis Pharma AG, Basel, CH-4002, Switz.
 SO Bioorg. Med. Chem. Lett. (1998), 8(7), 755-758
 CODEN: BMCLE8; ISSN: 0960-894X
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB A series of sialylated type-I sugars, which have the natural N-acetyl group of the glucosamine moiety replaced by a wide range of amides, is incubated with recombinant fucosyl-transferase III and non-natural guanosine-diphosphate activated donor-sugars. Surprisingly, the enzyme tolerates the simultaneous alterations on the donor and acceptor to form a wide array of sialyl-Lewisa-analogs.
 IT 6815-91-4 130272-39-8 181427-98-5
 181428-13-7 181657-48-7
 RL: RCT (Reactant)
 (enzymic synthesis of sialyl-Lewis libraries with two non-natural monosaccharide units)
 RN 6815-91-4 HCAPLUS
 CN Guanosine 5'-(trihydrogen diphosphate), P'-.beta.-L-galactopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



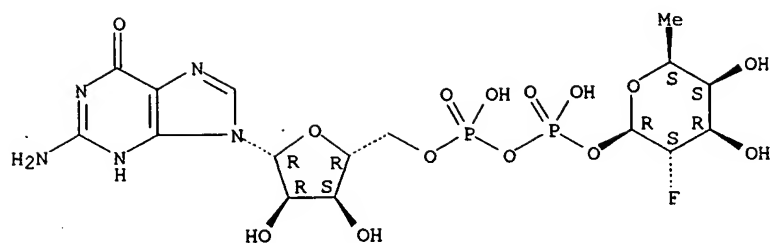
RN 130272-39-8 HCAPLUS
 CN Guanosine 5'-(trihydrogen diphosphate), P'-.alpha.-D-arabinopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 181427-98-5 HCAPLUS
 CN Guanosine 5'-(trihydrogen diphosphate), P'-(2,6-dideoxy-2-fluoro-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

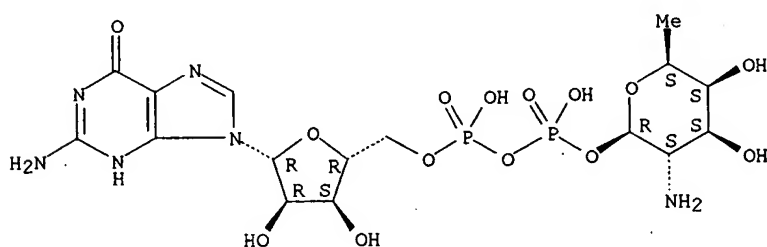
Absolute stereochemistry.



RN 181428-13-7 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-(2-amino-2,6-dideoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

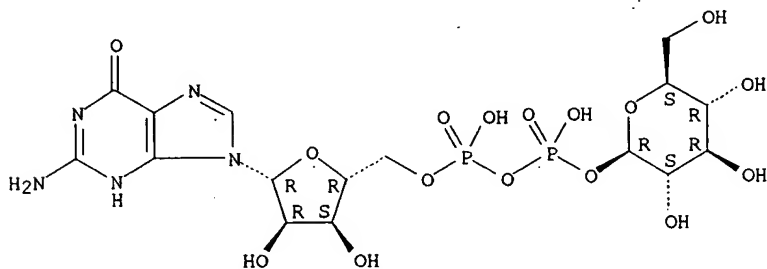
Absolute stereochemistry.



RN 181657-48-7 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-.beta.-L-glucopyranosyl ester (9CI) (CA INDEX NAME)

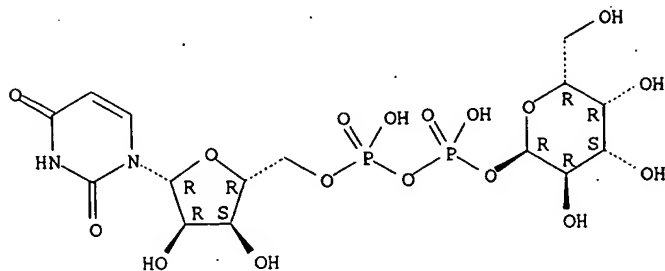
Absolute stereochemistry.



=> d bib abs hitstr 117 10

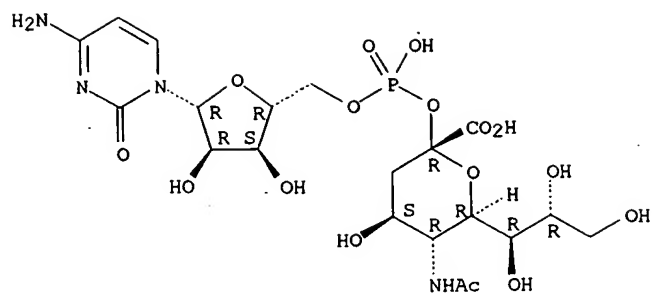
L17 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1998:221394 HCAPLUS
 DN 128:205073
 TI Solid-Phase Enzymic Synthesis of a Sialyl Lewis X Tetrasaccharide on a Sepharose Matrix
 AU Blixt, O.; Norberg, T.
 CS Department of Chemistry, Swedish University of Agricultural Sciences, Uppsala, S-750 07, Swed.
 SO J. Org. Chem. (1998), 63(8), 2705-2710
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 AB Thiopyridyl sepharoses with different linker arm lengths were prep'd. from epoxy sepharose 6B by reaction first with 1,8-diamino-3,6-dioxaoctane and then with, successively, diethoxy-3-cyclobutene-1,2-dione (squaric acid di-Et ester) and 1,8-diamino-3,6-dioxaoctane in several cycles, followed by reaction of the obtained amino sepharoses with, successively, thiobutylolactone and 2,2'-dithiopyridine. The thiopyridyl sepharoses were reacted with the glucosamine deriv. 2-(3'-mercaptobutyrylamido)ethyl 2-acetamido-2-deoxy-.beta.-D-glucopyranoside, giving GlcNAc sepharoses with different linker lengths. Enzymic galactosylation of these with .beta.-(1-4)-galactosyltransferase and UDP-galactose gave yields varying between 70 and 98%, and there was a clear correlation between linker length and yield. A GlcNAc sepharose with a long linker was then used in a solid-phase synthesis of a sialyl Lex tetrasaccharide. The three required enzymes (galactosyl-, sialyl, and fucosyltransferase) and nucleotide sugars were reacted consecutively with the GlcNAc sepharose, giving, after cleavage from sepharose with DTT, the free sialyl Lex tetrasaccharide deriv. in a 57% total yield after purifn.
 IT 2956-16-3, UDP-galactose 3063-71-6, CMP-neu5ac 15839-70-0, GDP-fucose
 RL: RCT (Reactant)
 (solid-phase enzymic synthesis of a sialyl Lewisx tetrasaccharide on a sepharose matrix)
 RN 2956-16-3 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 3063-71-6 HCAPLUS
 CN .beta.-Neuraminic acid, N-acetyl-, 2-(hydrogen 5'-cytidylate) (9CI) (CA INDEX NAME)

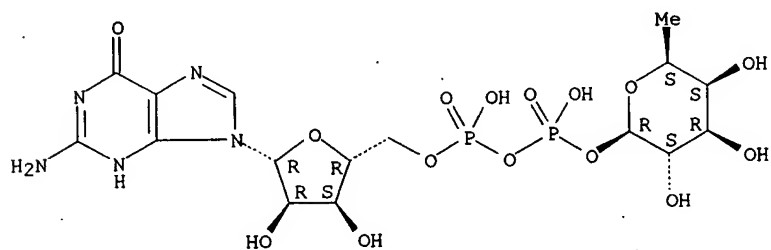
Absolute stereochemistry.



RN 15839-70-0 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 117 11

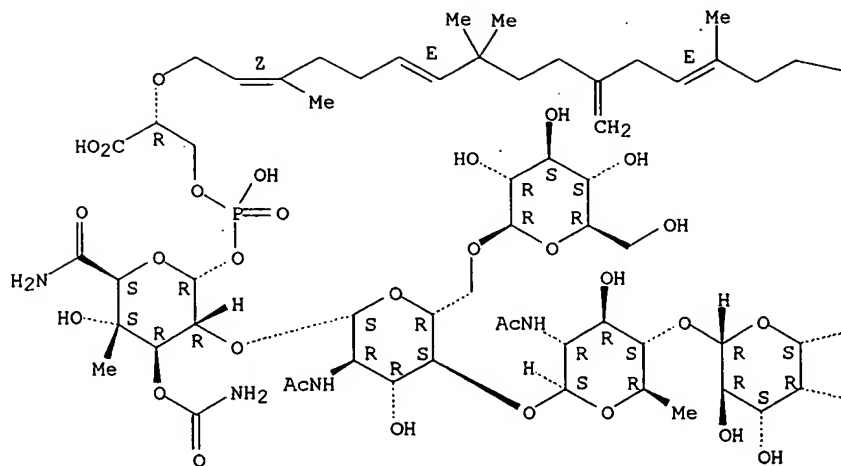
L17 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1997:805029 HCAPLUS
 DN 128:115156
 TI Moenomycin A: new chemistry that allows to attach the antibiotic to reporter groups, solid supports, and proteins
 AU Kempin, Uwe; Hennig, Lothar; Knoll, Dietmar; Welzel, Peter; Muller, Dietrich; Markus, Astrid; Van Heijenoort, Jean
 CS Institut fur Organische Chemie der Universitat Leipzig, Leipzig, D-04103, Germany
 SO Tetrahedron (1997), 53(52), 17669-17690
 CODEN: TETRAB; ISSN: 0040-4020
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 OS CASREACT 128:115156
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

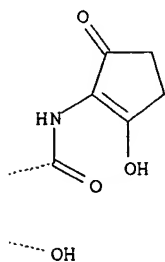
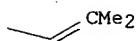
AB Moenomycin A (I), on reaction with the diazonium salt derived from bifunctional (protected) II, yields the coupling product III (R1 = 2-pyridylthio) which on redn. is converted into the moenomycin thiol deriv. III (R1 = H). Thiol III (R1 = H) has been used to selectively prep. dansyl and biotin adducts. This work was performed with the aim to use moenomycin as a tool for studies of the transglycosylation step in peptidoglycan biosynthesis.
 IT 76095-39-1, Moenomycin A
 RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); BIOL (Biological study)
 (prepn. of moenomycin thiol deriv. for attachment to reporter groups, solid supports, and proteins)
 RN 76095-39-1 HCAPLUS
 CN .alpha.-D-Glucopyranuronamide, O-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-[O-[N-(2-hydroxy-5-oxo-1-cyclopenten-1-yl)-.beta.-D-galactopyranuronamidoyl]-(1.fwdarw.4)-2-(acetylamino)-2,6-dideoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-4-C-methyl-, 3-carbamate 1-[(2R)-2-carboxy-2-[(2Z,6E,13E)-3,8,8,14,18-pentamethyl-11-methylene-2,6,13,17-nonadecatetraenyl]oxy]ethyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



IT 201666-58-2P

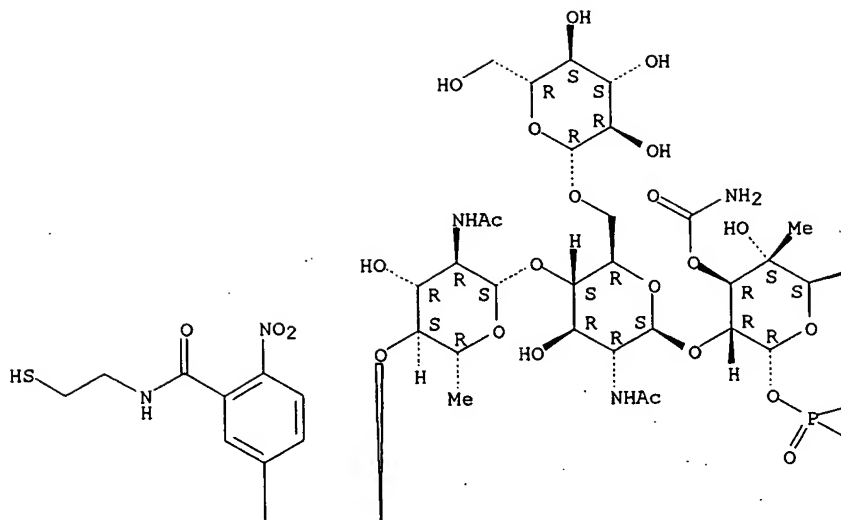
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);
 SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prepn. of moenomycin thiol deriv. for attachment to reporter groups,
solid supports, and proteins)

RN 201666-58-2 HCAPLUS

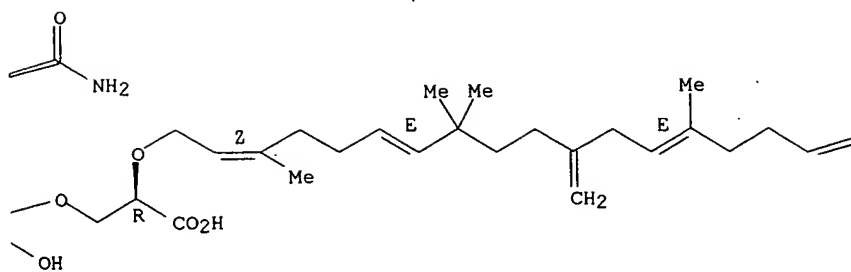
CN .alpha.-D-Glucopyranuronamide, O-(5R)-5-C-[3-(3-carboxy-1-oxopropyl)-1-[4-nitro-3-[[[(2-mercaptoethyl)amino]carbonyl]phenyl]-1H-1,2,4-triazol-5-yl]-.alpha.-L-arabinopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2,6-dideoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[(.beta.-D-glucopyranosyl-(1.fwdarw.6))-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-4-C-methyl-, 3-carbamate 1-[(2R)-2-carboxy-2-[[[(2Z,6E,13E)-3,8,8,14,18-pentamethyl-11-methylene-2,6,13,17-nonadecatetraenyl]oxy]ethyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

PAGE 1-A



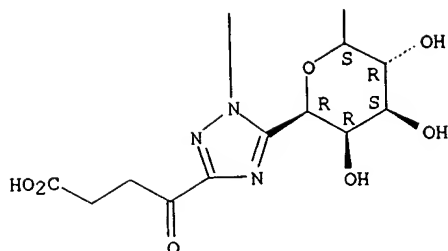
PAGE 1-B



PAGE 1-C

=CMe₂

PAGE 2-A



IT 181301-53-1P 201666-63-9P 201666-65-1P
201666-67-3P

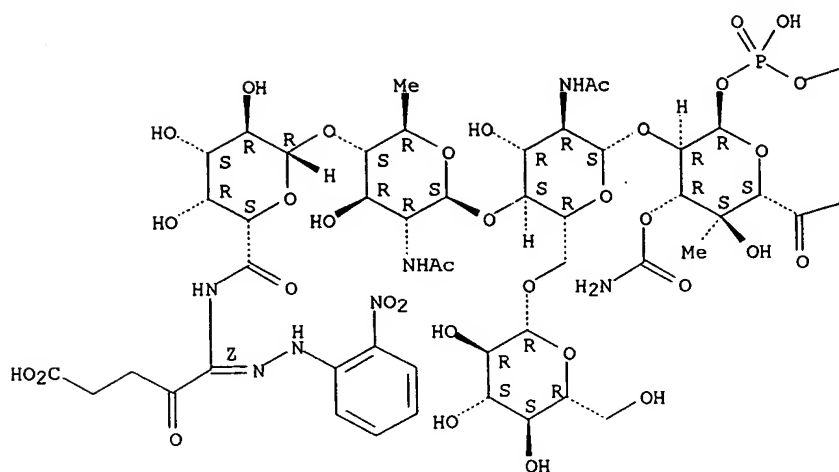
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of moenomycin thiol deriv. for attachment to reporter groups, solid supports, and proteins)

RN 181301-53-1 HCAPLUS

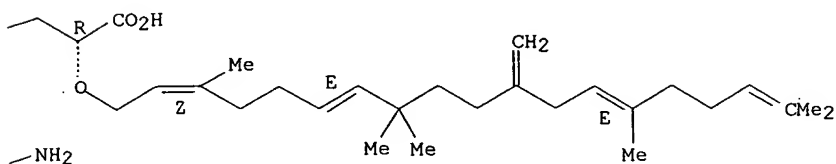
CN Moenomycin A, N6B-[4-carboxy-1-[(2-nitrophenyl)hydrazono]-2-oxobutyl]-N6B-de(2-hydroxy-5-oxo-1-cyclopenten-1-yl)-, [N6B(Z)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



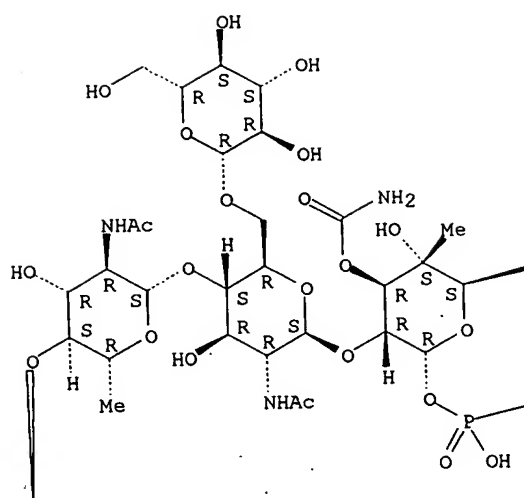
PAGE 1-B



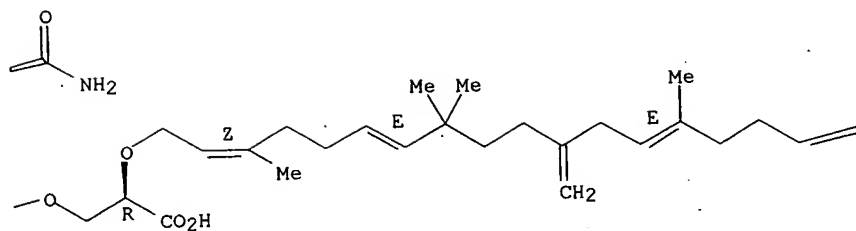
RN 201666-63-9 HCAPLUS
 CN .alpha.-D-Glucopyranuronamide, O-(5R)-5-C-[3-(3-carboxy-1-oxopropyl)-1-[3-
 [[[2-[[1-[2-[[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]amino]ethyl]-2,5-
 dioxo-3-pyrrolidinyl]thio]ethyl]amino]carbonyl]-4-nitrophenyl]-1H-1,2,4-
 triazol-5-yl]-.alpha.-L-arabinopyranosyl-(1.fwdarw.4)-O-2-(acetylamin)-
 2,6-dideoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[.beta.-D-
 glucopyranosyl-(1.fwdarw.6)]-O-2-(acetylamin)-2-deoxy-.beta.-D-
 glucopyranosyl-(1.fwdarw.2)-4-C-methyl-, 3-carbamate 1-[(2R)-2-carboxy-2-
 [(2Z,6E,13E)-3,8,8,14,18-pentamethyl-11-methylene-2,6,13,17-
 nonadecatetraenyl]oxy]ethyl hydrogen phosphate} (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

PAGE 1-A



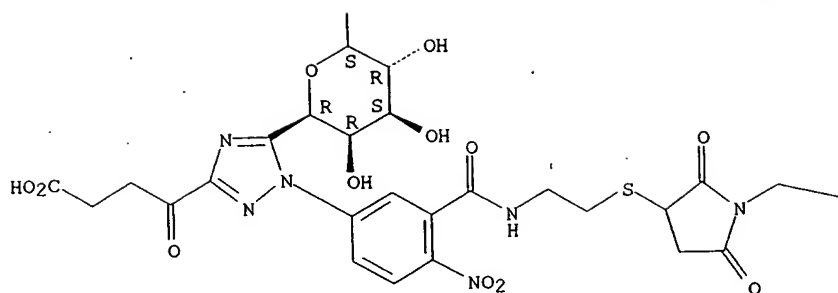
PAGE 1-B



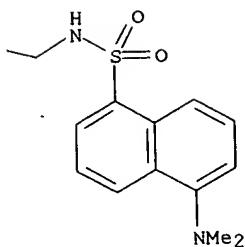
PAGE 1-C

=CMe2

PAGE 2-A



PAGE 2-B



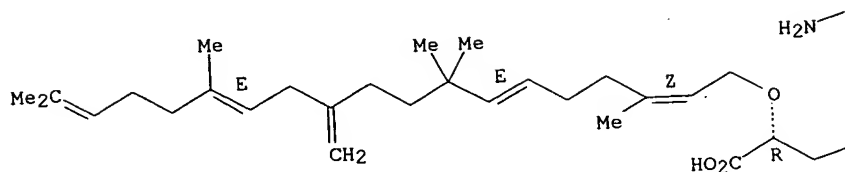
RN 201666-65-1 HCAPLUS
 CN .alpha.-D-Glucopyranuronamide, O-(5R)-5-C-[3-(3-carboxy-1-oxopropyl)-1-{3-
 [[2-[(2,5-dioxo-3-pyrrolidinyl)thio]ethyl]amino]carbonyl]-4-nitrophenyl]-
 1H-1,2,4-triazol-5-yl]-.alpha.-L-arabinopyranosyl-(1.fwdarw.4)-O-2-
 (acetylamino)-2,6-dideoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[.beta.-D-
 glucopyranosyl-(1.fwdarw.6)]-O-2-(acetamino)-2-deoxy-.beta.-D-
 glucopyranosyl-(1.fwdarw.2)-4-C-methyl-, 3-carbamate 1-[(2R)-2-carboxy-2-
 [(2Z,6E,13E)-3,8,8,14,18-pentamethyl-11-methylene-2,6,13,17-]

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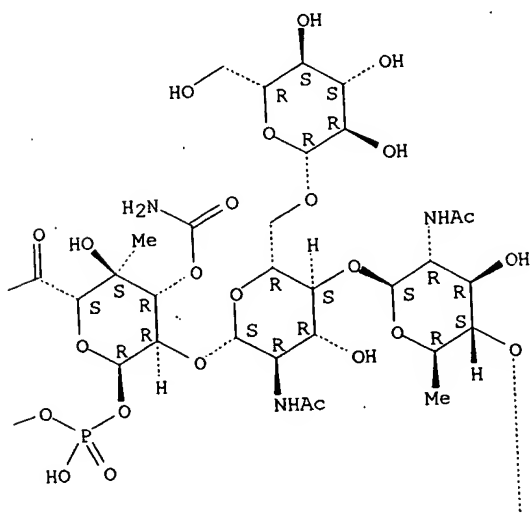
nonadecatetraenyl]oxy]ethyl hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

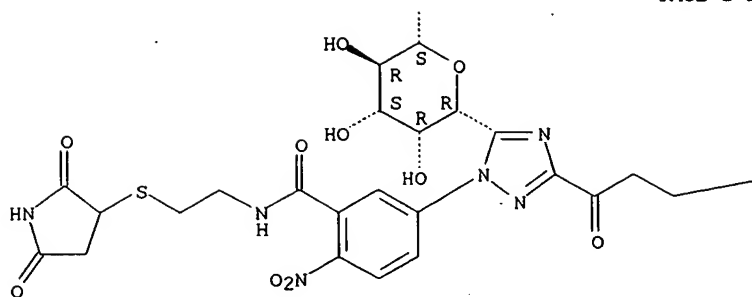
PAGE 1-A



PAGE 1-B



PAGE 2-B



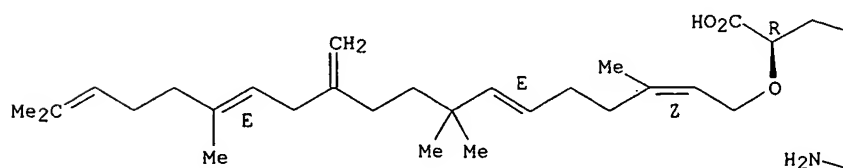
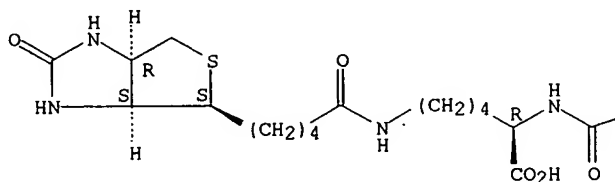
PAGE 2-C

-CO₂H

RN 201666-67-3 HCAPLUS
 CN .alpha.-D-Glucopyranuronamide, O-(5R)-5-C-[1-[3-[[[2-[[1-[3-[[[(1R)-1-carboxy-5-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]pentyl]amino]-3-oxopropyl]-2,5-dioxo-3-pyrrolidinyl]thio]ethyl]amino]carbonyl]-4-nitrophenyl]-3-(3-carboxy-1-oxopropyl)-1H-1,2,4-triazol-5-yl]-.alpha.-L-arabinopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2,6-dideoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[[.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-4-C-methyl-, 3-carbamate 1-[(2R)-2-carboxy-2-[[[(2Z,6E,13E)-3,8,8,14,18-pentamethyl-11-methylene-2,6,13,17-nonadecatetraenyl]oxy]ethyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

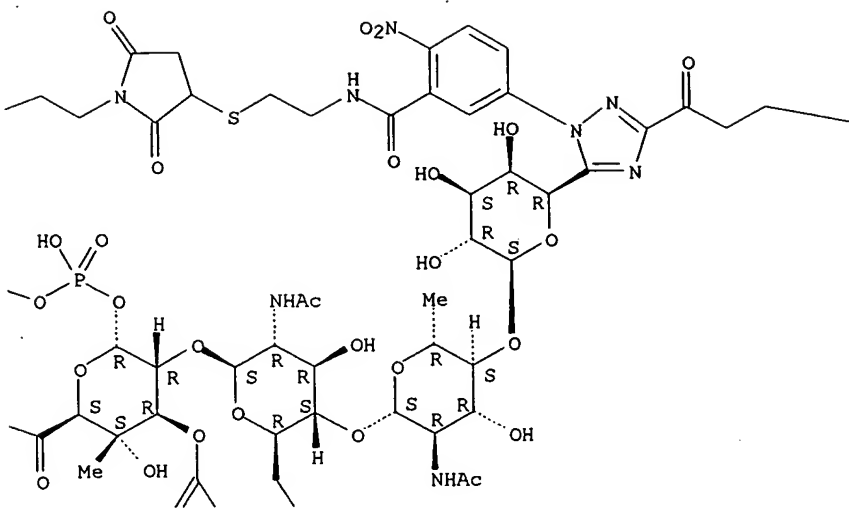
PAGE 1-A



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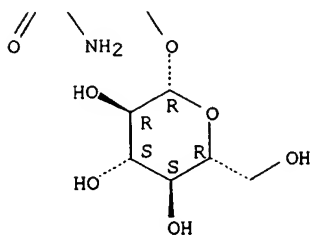
PAGE 1-B



PAGE 1-C

-CO₂H

PAGE 2-B



IT 201666-57-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of moenomycin thiol deriv. for attachment to reporter groups,
solid supports, and proteins)

RN 201666-57-1 HCAPLUS

CN .alpha.-D-Glucopyranuronamide, O-(5R)-5-C-[3-(3-carboxy-1-oxopropyl)-1-(4-nitro-3-[[2-(2-pyridinyldithio)ethyl]amino]carbonyl]phenyl)-1H-1,2,4-triazol-5-yl]-.alpha.-L-arabinopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2,6-dideoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-4-C-methyl-, 3-carbamate 1-[(2R)-2-carboxy-2-[[[(2Z,6E,13E)-3,8,8,14,18-pentamethyl-11-methylene-2,6,13,17-nonadecatetraenyl]oxy]ethyl hydrogen phosphate] (9CI) (CA INDEX NAME)

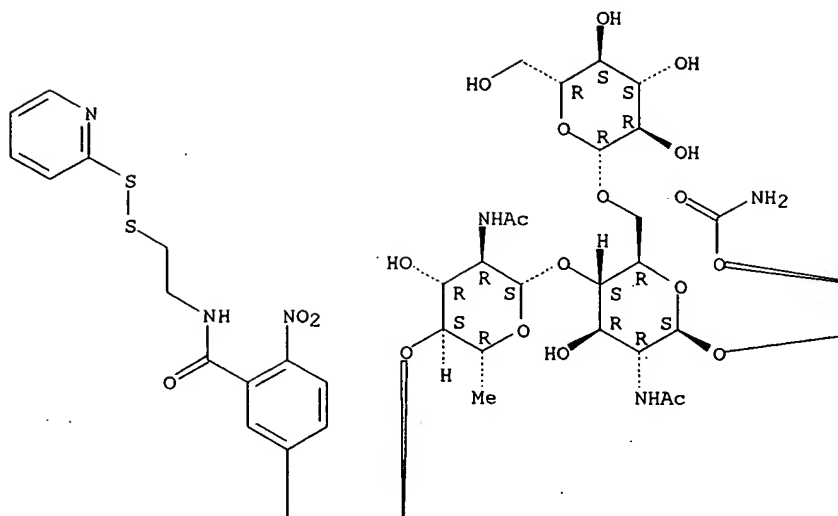
Absolute stereochemistry.

Double bond geometry as shown.

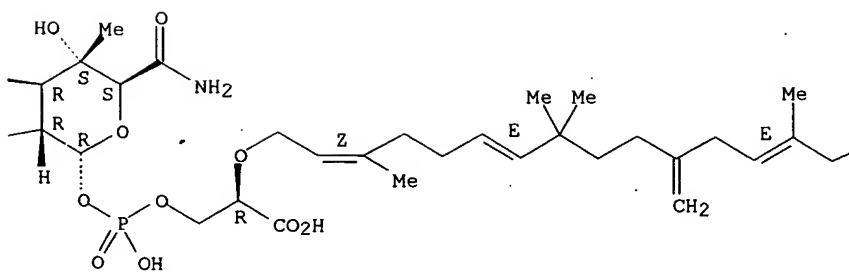
SEARCHED BY SUSAN HANLEY 305-4053

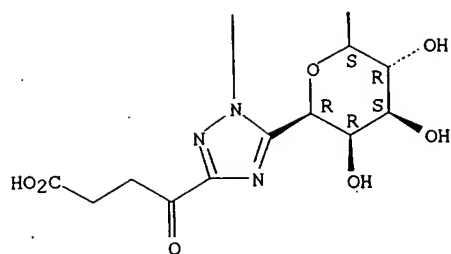
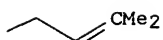
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PAGE 1-B





=> d bib abs hitstr 117 12

L17 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2000 ACS

AN 1997:461637 HCAPLUS

DN 127:81736

TI Solid phase preparation and enzymic and non-enzymic bond cleavage of sugars and glycopeptides

IN Flitsch, Sabine Lahja; Turner, Nicholas John

PA Genzyme Limited, UK; Flitsch, Sabine Lahja; Turner, Nicholas John

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

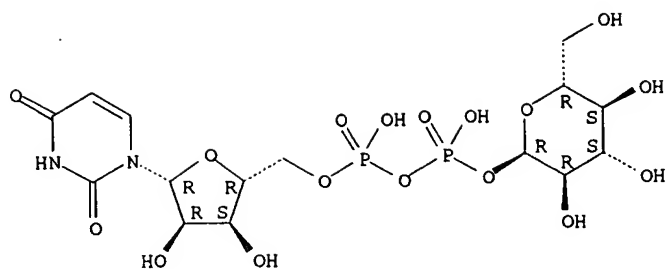
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9720855	A2	19970612	WO 1996-EP5535	19961206
	WO 9720855	A3	19970710		
	W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	CA 2239298	AA	19970612	CA 1996-2239298	19961206
	AU 9712033	A1	19970627	AU 1997-12033	19961206
	AU 719356	B2	20000504		
	EP 871650	A2	19981021	EP 1996-943085	19961206
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
	JP 2000502068	T2	20000222	JP 1997-520999	19961206
PRAI	GB 1995-25007		19951207		
	GB 1996-13921		19960703		
	WO 1996-EP5535		19961206		
AB	A method of prepn. of a material corresponding to general formula R3XH, characterized in that it comprises a material corresponding to general formula R3XCHR1R2-support, being cleaved enzymically or non-enzymically using acid catalysis in the presence of a nucleophile; wherein R1 represents a group providing the site for exo-enzyme or acid hydrolysis; R2 represents an optional intermediate linked to a solid support; R3 represents a residue of the carbohydrate, oligosaccharide, glycopeptide, glycolipid or of an org. mol. which is heterocyclic and/or arom.; X represents O, N(H), N(R'), C(O)O, S, C(O)N(H) or C(O)N(R'), R' being a non-interfering substituent; and support represents a solid support; is disclosed. Thus, N-[4-amino-1-(ethylsulfanyl)butyl]phenylacetamide was prepd. via coupling of 4-bromobutanal-benzotriazole-phenylacetamide and submitted to penicillin amidase hydrolysis to give phenylacetic acid.				
IT	133-89-1, UDP-glucose				
	RL: RCT (Reactant)				
	(solid-phase prepn. and enzymic and nonenzymic bond cleavage of sugars and glycopeptides)				
RN	133-89-1 HCAPLUS				
CN	Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester (9CI) (CA INDEX NAME)				

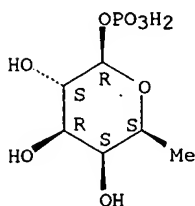
Absolute stereochemistry.



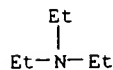
=> d bib abs hitstr 117 13

L17 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1997:242724 HCAPLUS
 DN 126:317550
 TI Solid-phase enzymic synthesis of a Lewis a trisaccharide using an acceptor reversibly bound to sepharose
 AU Blixt, O.; Norberg, T.
 CS Department of Chemistry, Swedish University of Agricultural Sciences, Uppsala, S-750 07, Swed.
 SO J. Carbohydr. Chem. (1997), 16(2), 143-154
 CODEN: JCACDM; ISSN: 0732-8303
 PB Dekker
 DT Journal
 LA English
 AB The disaccharide 2-aminoethyl O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-2-acetamido-2-deoxy-.beta.-D-glucopyranoside was reacted with thiobutylolactone to give a disaccharide with a thiol group on the aglycon. This disaccharide was reacted with activated Thiopropyl Sepharose, which gave a disaccharide bound to Sepharose via a disulfide bond. Enzymic fucosylation, using GDP-fucose and partially purified human milk fucosyltransferase, gave a trisaccharide in good yield, which was cleaved from Sepharose by treatment with mercaptoethanol or dithiothreitol.
 IT **128473-11-0P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (solid-phase enzymic synthesis of a Lewis A trisaccharide using an acceptor reversibly bound to sepharose)
 RN 128473-11-0 HCAPLUS
 CN .beta.-L-Galactopyranose, 6-deoxy-, 1-(dihydrogen phosphate), compd. with N,N-diethylethanamine (1:2) (9CI) (CA INDEX NAME)
 CM 1
 CRN 16562-59-7
 CMF C6 H13 O8 P
 CDES 5:B-L-GALACTO

Absolute stereochemistry.



CM 2
 CRN 121-44-8
 CMF C6 H15 N



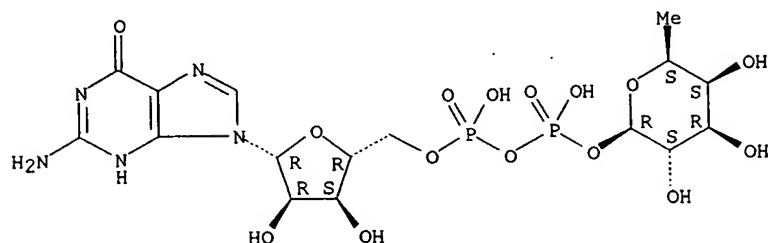
IT **15839-70-0P**, GDP-fucose
 RL: SPN (Synthetic preparation); PREP (Preparation) (solid-phase enzymic synthesis of a Lewis A trisaccharide using an acceptor reversibly bound to sepharose)
 RN 15839-70-0 HCAPLUS

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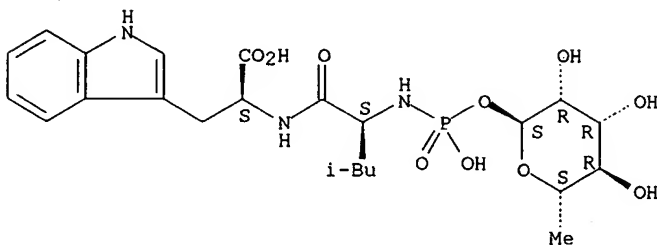
CN Guanosine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



O=P(O)(Cc1ccccc1)C(=O)Nc2ccccc2OC(=O)Nc3ccccc3

Absolute stereochemistry. Rotation (-).

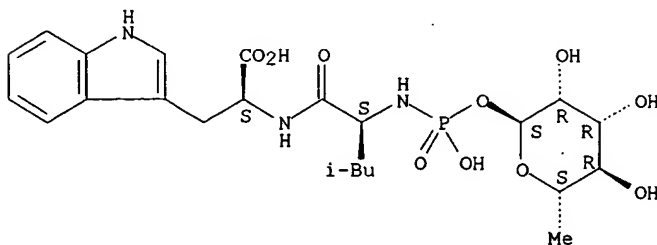


=> d bib abs hitstr 117 15

L17 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1996:273592 HCAPLUS
 DN 124:307561
 TI Process for screening a library of compounds released from a solid phase
 IN Garman, Andrew John; Holland, Janet Dora
 PA Zeneca limited, UK
 SO Brit. UK Pat. Appl., 27 pp.
 CODEN: BAXXDU
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2291708	A1	19960131	GB 1995-14722	19950719
	GB 2291708	B2	19970305		
	WO 9603647	A1	19960208	WO 1995-GB1700	19950719
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9529863	A1	19960222	AU 1995-29863	19950719
	EP 774116	A1	19970521	EP 1995-925915	19950719
	EP 774116	B1	19991103		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 186399	E	19991115	AT 1995-925915	19950719
	ES 2139225	T3	20000201	ES 1995-925915	19950719
PRAI	GB 1994-14770		19940722		
	GB 1995-10137		19950519		
	WO 1995-GB1700		19950719		
AB	A method is disclosed for screening a compd. library provided on solid phase. The method comprises releasing a proportion of the library from the solid phase into distinct zones of an assay medium, performing a (proximity) screening assay with a biol. of interest within the medium, identifying active zone(s) in the assay medium and detg. the identity of active member(s) of the library by ref. to the corresponding compd.(s) still bound to the solid phase. The compds. may comprise biopolymers (e.g. peptides) or diverse non-oligomeric compds. Detection of endothelin antagonists by zone screening employing scintillation proximity is described.				
IT	36357-77-4 , Phosphoramidon				
	RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (screening library of compds. released from solid phase)				
RN	36357-77-4 HCAPLUS				
CN	L-Tryptophan, N-[[[(6-deoxy-.alpha.-L-mannopyranosyl)oxy]hydroxyphosphinyl]-L-leucyl- (9CI) (CA INDEX NAME)				

Absolute stereochemistry. Rotation (-).

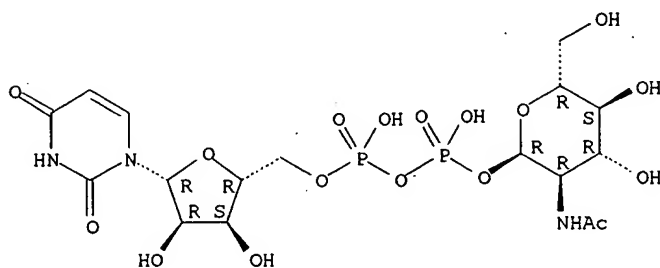


LEE 09/413,381

=> d bib abs hitstr 117 16

L17 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1996:7232 HCAPLUS
 DN 124:139594
 TI Time-resolved solid-state REDOR NMR studies of UDP N-acetylglucosamine enolpyruvyl transferase
 AU Li, Yan; Krekel, Florian; Ramilo, Cecilia A.; Amrhein, Nikolaus; Evans, Jeremy N. S.
 CS Department of Biochemistry and Biophysics, Washington State University, Pullman, WA, 99164-4660, USA
 SO FEBS Lett. (1995), 377(2), 208-12
 CODEN: FEBLAL; ISSN: 0014-5793
 DT Journal
 LA English
 AB The new method of time-resolved solid-state rotational echo double resonance (REDOR) NMR spectroscopy introduced recently by this lab. has been applied to the enzyme uridine diphosphate-N-acetylglucosamine (UDP-NAG) enolpyruvyltransferase (EPT), with the goal of probing the interactions between reactive species and their enzyme active site. The approach has been used in a qual. fashion with the enzyme-inhibitor and enzyme-intermediate complexes of uniformly ¹⁵N-labeled UDP-NAG EPT, trapped under steady-state and pre-steady-state conditions. A different set of intermol. interactions between the substrates UDP-NAG, UDP-NAG plus 3-Z-fluorophosphoenolpyruvate, covalent O-phosphothioether, and UDP-NAG plus phosphoenolpyruvate trapped under time-resolved conditions (after 50 ms reaction time), and the EPT enzyme active site were obsd., and this is contrasted to a similar study of the interactions in a related enzyme, 5-enolpyruvyl-shikimate-3-phosphate synthase.
 IT 528-04-1
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
 (time-resolved **solid-state** REDOR NMR studies of
 UDP-N-acetylglucosamine enolpyruvyltransferase)
 RN 528-04-1 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-[2-(acetyl-amino)-2-deoxy-.alpha.-D-glucopyranosyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

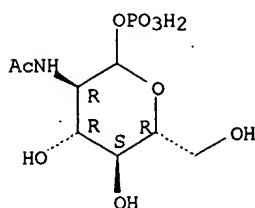


=> d bib abs hitstr 117 17

L17 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1995:837578 HCAPLUS
 DN 123:334348
 TI Methods for the solid phase synthesis of glycoconjugates
 IN Vetter, Dirk; Tumelty, David; Antonenko, Valery
 PA Affymax Technologies N.V., Neth.
 SO PCT Int. Appl., 79 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9518971	A1	19950713	WO 1995-US484	19950110
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US				
	RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9516029	A1	19950801	AU 1995-16029	19950110
PRAI	US 1994-179741		19940111		
	US 1994-201607		19940225		
	WO 1995-US484		19950110		
AB	An efficient and versatile method of forming N-linked glycoconjugates is described wherein a glycosyl acceptor, typically comprising an activated carboxyl group, is reacted with a glycosylating agent, typically a glycosyl amine, in the presence of a coupling catalyst and optionally an exogenous base. Depending on the choice of reactive site, this method can be used to form N-linked glycoconjugates, in either a sol. or substrate-bound, linear or branched format.				
IT	6866-69-9DP , TentaGel conjugates RL: SPN (Synthetic preparation); PREP (Preparation) (methods for solid-phase synthesis of glycoconjugates)				
RN	6866-69-9 HCAPLUS				
CN	D-Glucopyranose, 2-(acetylamino)-2-deoxy-, 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)				

Absolute stereochemistry.

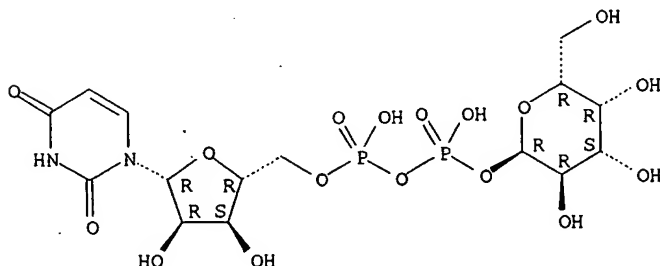


=> d bib abs hitstr 117 18

L17 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1995:278597 HCAPLUS
 DN 123:170187
 TI Process for solid phase glycopeptide synthesis
 IN Wong, Chi-Huey; Schuster, Matthias
 PA Scripps Research Institute, USA
 SO U.S., 18 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5369017	A	19941129	US 1994-191777	19940204
	WO 9521262	A1	19950810	WO 1994-US12841	19941108
	W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9512546	A1	19950821	AU 1995-12546	19941108
PRAI	US 1994-191777		19940204		
	WO 1994-US12841		19941108		
AB	A process for the synthesis of a glycopeptide using a solid phase matrix is disclosed. The matrix is compatible with aq. and org. solvents and is comprised of a silica-based solid support to which is linked a two-part spacer group having a chain length of about 12 to about 40 methylene groups. The first part of the spacer is covalently bonded to the silica-based support and has a length of about 3 to about 10 methylene groups. The second spacer part is covalently bonded to the first part of the spacer and comprises the distal end of the two part spacer. The second part is sol. as a free mol. in each of water, DMF and dichloromethane and has a terminal amine or hydroxyl group to which the C-terminal residue of the peptide portion of the glycopeptide chain is bonded. The chain of atoms connecting the desired glycopeptide to the solid phase matrix also includes a moiety having a selectively severable bond which on cleavage of that bond separates the matrix from whatever else is bonded to that moiety.				
IT	2956-16-3 3063-71-6 15839-70-0				
	RL: RCT (Reactant) (solid phase glycopeptide synthesis using silica matrix compatible with aq. and org. solvents)				
RN	2956-16-3 HCAPLUS				
CN	Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)				

Absolute stereochemistry.

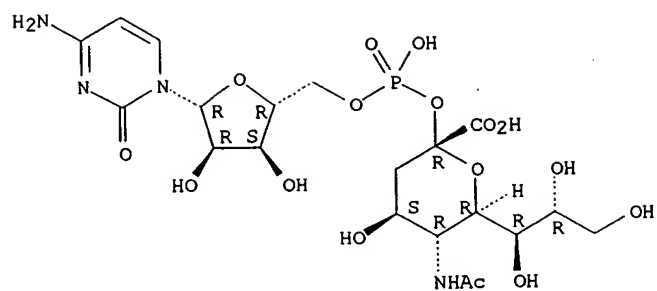


RN 3063-71-6 HCAPLUS
 CN .beta.-Neuraminic acid, N-acetyl-, 2-(hydrogen 5'-cytidylate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

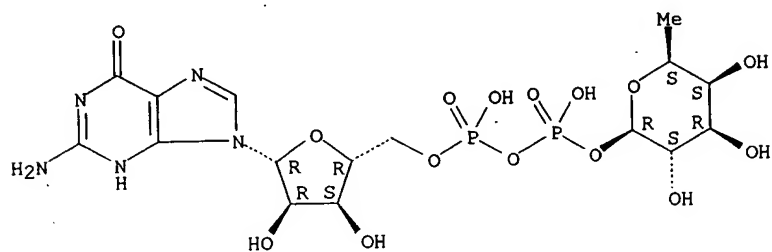
SEARCHED BY SUSAN HANLEY 305-4053

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RN 15839-70-0 HCAPLUS
 CN Guanosine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

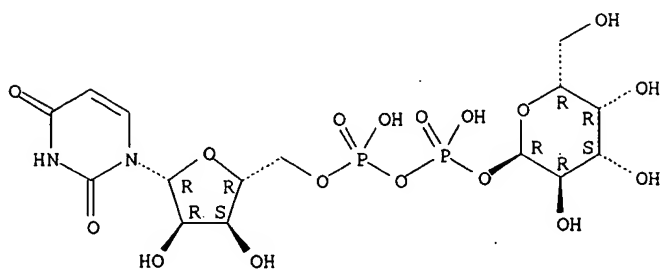
Absolute stereochemistry.



=> d bib abs hitstr 117 19

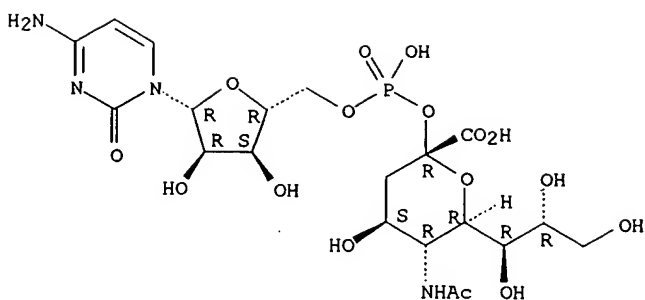
L17 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1995:198948 HCAPLUS
 DN 123:33527
 TI Solution- and Solid-Phase Synthesis of Inhibitors of *H. pylori* Attachment and E-Selectin-Mediated Leukocyte Adhesion
 AU Halcomb, Randall L.; Huang, Hongmei; Wong, Chi-Huey
 CS Department of Chemistry, Scripps Research Institute, La Jolla, CA, 92037, USA
 SO J. Am. Chem. Soc. (1994), 116(25), 11315-22
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 AB Chem. and enzymic methods have been developed for the synthesis of the oligosaccharides NeuAc.alpha.2-3Gal.beta.1-4GlcNAc.beta.1-3Gal and NeuAc.alpha.2-3Gal.beta.1-4(Fuc.alpha.1-3)GlcNAc.beta.1-3Gal as inhibitors for *H. pylori* and E-selectin, resp. Gal, NeuAc, and Fuc were incorporated sequentially into the synthetic primer GlcNAc.beta.1-3Gal.beta.OEt by the corresponding glycosyltransferases to give both the tetrasaccharide and the pentasaccharide. This soln.-phase strategy was then extended to the solid-phase synthesis of the tetrasaccharide. A disaccharide primer was first attached to controlled pore glass via a spacer group contg. an ester bond, followed by enzymic incorporation of Gal and NeuAc. Two to three equiv. of sugar nucleotides were used in the enzymic glycosylation, and the conversion for each step was >98% as indicated in the anal. of products released by treatment with hydrazine.
 IT 2956-16-3. 3063-71-6 15839-70-0
 164112-63-4
 RL: RCT (Reactant)
 (soln.- and **solid-phase** synthesis of oligosaccharides as inhibitors of *H. pylori* attachment and E-selectin-mediated leukocyte adhesion)
 RN 2956-16-3 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 3063-71-6 HCAPLUS
 CN .beta.-Neuraminic acid, N-acetyl-, 2-(hydrogen 5'-cytidylate) (9CI) (CA INDEX NAME)

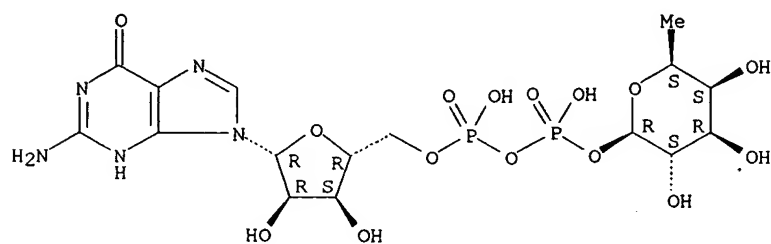
Absolute stereochemistry.



RN 15839-70-0 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

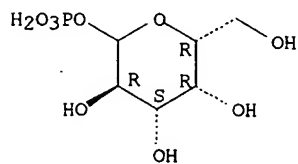
Absolute stereochemistry.



RN 164112-63-4 HCAPLUS

CN D-Galactopyranose, 1-(dihydrogen phosphate), dipotassium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

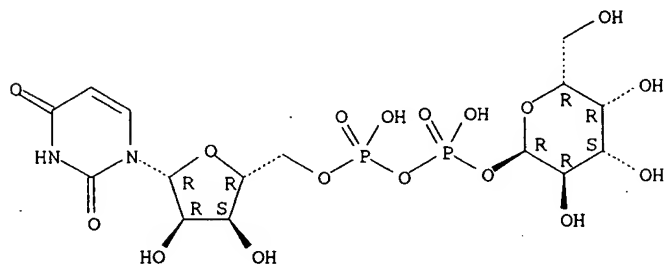


● 2 K

=> d bib abs hitstr 117 20

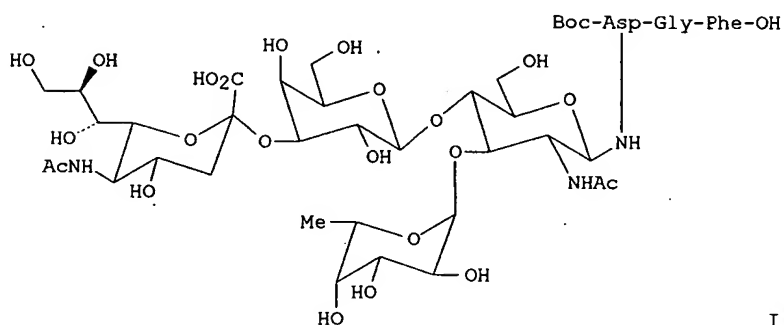
L17 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1995:53039 HCAPLUS
 DN 122:106472
 TI A PEGA resin for use in the solid-phase chemical-enzymic synthesis of glycopeptides
 AU Meldal, Morten; Auzanneau, France-Isabelle; Hindsgaul, Ole; Palcic, Monica M.
 CS Dep. Chem., Carlsberg Lab., Valby, DK-2500, Den.
 SO J. Chem. Soc., Chem. Commun. (1994), (16), 1849-50
 CODEN: JCCCAT; ISSN: 0022-4936
 DT Journal
 LA English
 AB The successful application of a new resin consisting of beaded polyethylene glycol polyacrylamide copolymer (PEGA1900) as a solid support for the chem.-enzymic synthesis of glycopeptides is reported. The resin is mech. stable, yet highly swelling in both org. solvents and aq. buffers.
 IT **2956-16-3**, UDP-galactose
 RL: RCT (Reactant)
 (A polyethylene glycol-acrylamide copolymer resin for use in the **solid-phase** chem.-enzymic synthesis of glycopeptides)
 RN 2956-16-3 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 117 21

L17 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1994:409966 HCAPLUS
 DN 121:9966
 TI Solid-Phase Chemical-Enzymic Synthesis of Glycopeptides and
 Oligosaccharides
 AU Schuster, Matthias; Wang, Peng; Paulson, James C.; Wong, Chi-Huey
 CS Department of Chemistry, Scripps Research Institute, La Jolla, CA, 92037,
 USA
 SO J. Am. Chem. Soc. (1994), 116(3), 1135-6
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 GI



AB A new strategy for the high yield solid-phase synthesis of glycopeptides has been developed. It employs a solid-phase chem. synthesis of a peptide acceptor followed by enzymic glycosylation on a silica-based solid support. This strategy allows the rapid iterative formation of peptide and glycosidic bonds on org. and aq. solvents, and enables the release or the glycopeptide or oligosaccharide from the support enzymically under mild conditions. A representative synthesis of sialyl Lewis x glycopeptides, e.g. I (Boc = Me3CO2C), is illustrated.

IT 2956-16-3, UDP-galactose 3063-71-6 123537-35-9

, UDP fucose

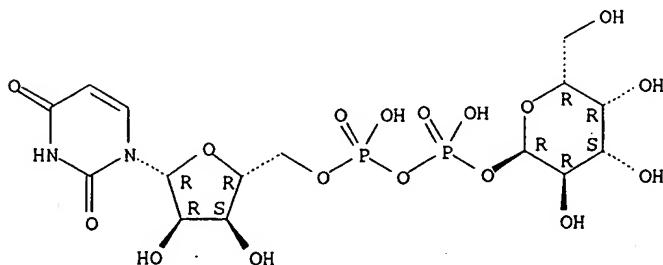
RL: RCT (Reactant)

(reactant, in **solid-phase** chem.-enzymic synthesis of glycopeptides and oligosaccharides)

RN 2956-16-3 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



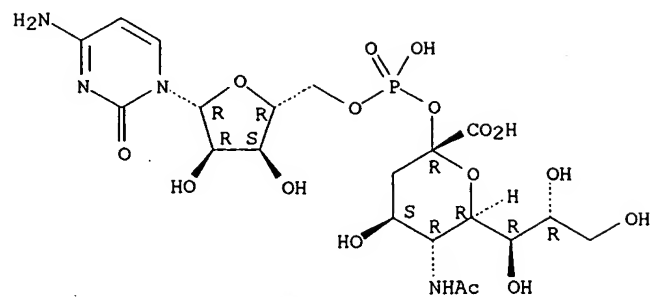
RN 3063-71-6 HCAPLUS

CN .beta.-Neuraminic acid, N-acetyl-, 2-(hydrogen 5'-cytidylate) (9CI) (CA

SEARCHED BY SUSAN HANLEY 305-4053

INDEX NAME)

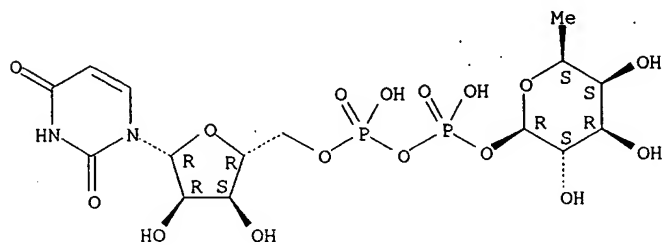
Absolute stereochemistry.



RN 123537-35-9 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

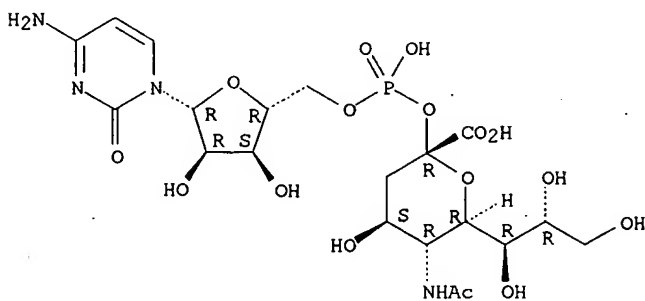
Absolute stereochemistry.



=> d bib abs hitstr 117 22

L17 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1993:142190 HCAPLUS
 DN 118:142190
 TI A solid-phase assay for the activity of CMPNeuAc:Gal .beta.1-4GlcNAc-R
 alpha-2,6-sialyltransferase
 AU Mattox, Sharon; Walrath, Kathryn; Ceiler, Debbie; Smith, David F.;
 Cummings, Richard D.
 CS Dep. Biochem., Univ. Georgia, Athens, GA, 30602, USA
 SO Anal. Biochem. (1992), 206(2), 430-6
 CODEN: ANBCA2; ISSN: 0003-2697
 DT Journal
 LA English
 AB A solid-phase assay for the activity of CMPNeuAc:Gal .beta.1-4GlcNAc-R
 .alpha.-2,6-sialyltransferase (2,6ST) has been developed. In the assay an
 acceptor glycoprotein is immobilized onto microtiter plate wells. The two
 glycoprotein acceptors used were asialofetuin (ASF), which contains
 oligosaccharides terminating in the sequence Gal .beta.1-4GlcNAc-R, and
 neoglycoprotein of bovine serum albumin contg. covalently attached Gal
 .beta.1-4GlcNAc-R units. Samples contg. the donor CMP-NeuAc and the 2,6ST
 were incubated with the immobilized acceptor to generate the product NeuAc
 a2-6Gal .beta.1-4GlcNAc-R. The product was detected by a
 biotin-streptavidin system using the biotinylated plant lectin Sambucus
 nigra agglutinin (SNA), which binds to sialic acid in .alpha.-2,6, but not
 in .alpha.-2,3, linkage. The biotinylated SNA bound to the product was
 then detected with streptavidin and biotinylated forms of either alk.
 phosphatase or the recombinant bioluminescent protein aequorin. The assay
 was optimized with respect to the com. available 2,6ST activity in the
 range of 20 to 400 .mu.U in a 1-h assay. The solid-phase assay also
 allows for the selective detection of 2,6ST activity in human and fetal
 bovine serum, where the activity was proportional in the range of 0.1 to 2
 .mu.L of serum.
 IT 3063-71-6
 RL: ANST (Analytical study)
 (in sialyltransferase of human **solid-phase** assay,
 as donor)
 RN 3063-71-6 HCAPLUS
 CN .beta.-Neuraminic acid, N-acetyl-, 2-(hydrogen 5'-cytidylate) (9CI) (CA
 INDEX NAME)

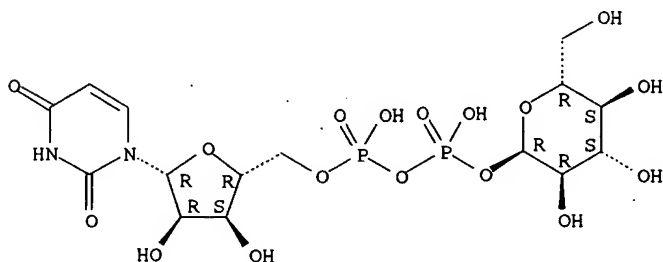
Absolute stereochemistry.



=> d bib abs hitstr 117 23

L17 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1992:250818 HCAPLUS
 DN 116:250818
 TI A rapid and simple assay method for UDP-glucose:ceramide glucosyltransferase
 AU Matsuo, Noboru; Nomura, Tomoko; Imokawa, Genji
 CS Biol. Sci. Lab., Kao Corp., Tochigi, Japan
 SO Biochim. Biophys. Acta (1992), 1116(2), 97-103
 CODEN: BBACAQ; ISSN: 0006-3002
 DT Journal
 LA English
 AB A simple rapid method for measuring UDP-glucose:ceramide glucosyltransferase is described; the method utilizes ceramide immobilized on the surface of silica gel and [¹⁴C]UDP-glucose as substrate. The reaction product, [¹⁴C]glucosylceramide, formed on the surface of the silica gel was easily sepd. from free [¹⁴C]UDP-glucose, either by centrifugation or by filtration. The reliability of this solid-phase method was evaluated by using rat brain membrane fraction as an enzyme source. This enzyme had an optimal pH of 6.4-6.5 and required Mn²⁺, Mg²⁺ in the presence of CHAPS. Apparent Km values of 8.7 .mu.M for UDP-glucose and 292 .mu.M for ceramide were detd. using the new method. Under the optimal conditions, the solid-phase method yielded 2-5-times more product than did the method using micellar system. Moreover, the reaction was highly quant. in its enzyme dose-activity relationship.
 IT 133-89-1, UDP-glucose
 RL: RCT (Reactant)
 (reaction of, with ceramide glucosyltransferase in **solid-phase** enzyme assay system)
 RN 133-89-1 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

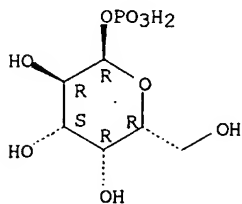


=> d bib abs hitstr 117 24

L17 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2000 ACS
 AN 1990:175261 HCAPLUS
 DN 112:175261
 TI Sensitive method for simple and rapid determination of multiple samples
 IN Fujimura, Arinobu
 PA Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01124749	A2	19890517	JP 1987-282591	19871109
AB	The title method uses a system consisting of a microplate or strip cell (cuvette) and a fluorometer or spectrometer. For mass screening, paper disks contg. test or std. blood was placed in the wells of a sensitized plate and incubated with .beta.-galactose dehydrogenase-labeled antihuman TSH antibody (IgG) at 37.degree. overnight. After discarding the reaction mixt., a 4-methylumbelliferyl-.beta.-D-galactoside soln. was added, and the soln. was incubated at 37.degree. for 1 h, mixed with 0.1 M glycine-NaOH soln. to terminate the reaction, and measured with a fluorometer for TSH detn.				
IT	2255-14-3, Galactose-1-phosphate RL: ANT (Analyte); ANST (Analytical study) (detn. of, combinations of solid-phase EIA and fluorometry or spectrometry for)				
RN	2255-14-3 HCAPLUS				
CN	.alpha.-D-Galactopyranose, 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)				

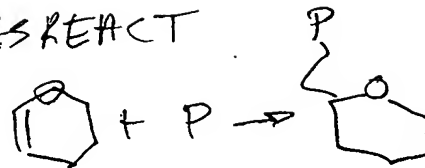
Absolute stereochemistry.



STIC SEARCH

LEE 09/413,381

CASREACT



=> D BIB ABS FCRDREF L22 1

L22 ANSWER 1 OF 9 CASREACT COPYRIGHT 2000 ACS

AN 132:93556 CASREACT

TI Solid-Phase Oligosaccharide Synthesis: Preparation of Complex Structures Using a Novel Linker and Different Glycosylating Agents

AU Andrade, Rodrigo B.; Plante, Obadiah J.; Melean, Luis G.; Seeberger, Peter H.

CS Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA

SO Org. Lett. (1999), 1(11), 1811-1814

CODEN: ORLEF7; ISSN: 1523-7060

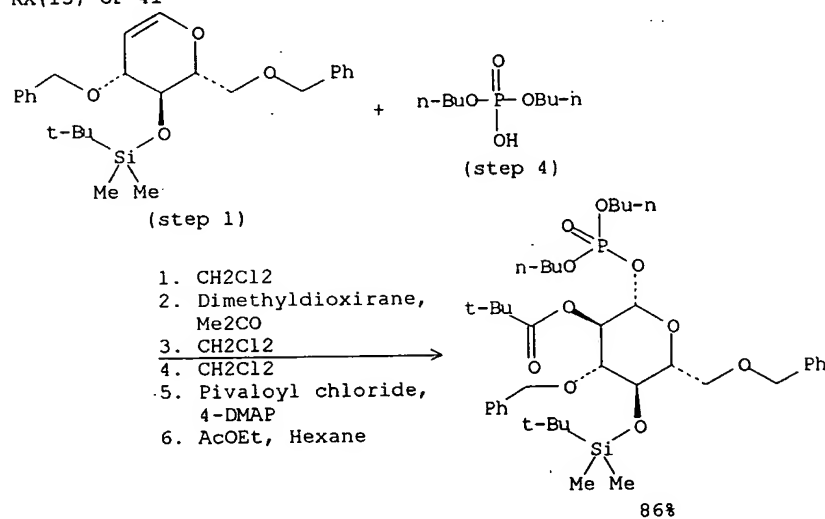
PB American Chemical Society

DT Journal

LA English

AB A .beta.-(1.fwdarw.4)-linked trisaccharide was prepd. in 53% yield on a polymer support using glycosyl phosphates and released by cross-metathesis of a novel linker to reveal the anomeric n-pentenyl glycoside. Heptasaccharide was prepd. in 9% yield in 14 steps.

RX(13) OF 41



REF: Org. Lett., 1(11), 1811-1814; 1999

OF 9 CASREACT COPYRIGHT 2000 ACS

RE.CNT 50

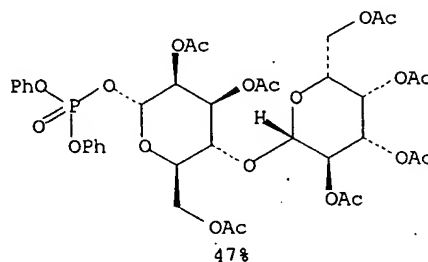
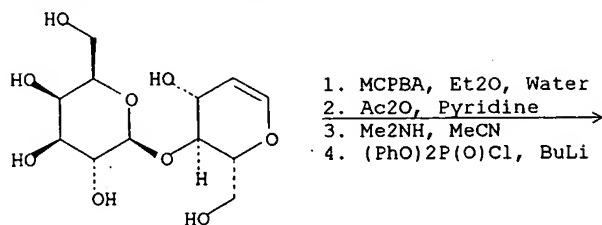
RE

- (1) Adinolfi, M; Tetrahedron Lett 1996, V37, P5007 CAPLUS
 - (2) Adinolfi, M; Tetrahedron Lett 1998, V39, P1953 CAPLUS
 - (6) Caruthers, M; Science 1985, V230, P281 CAPLUS
 - (7) Danishefsky, S; Science 1993, V260, P1307 CAPLUS
 - (8) Douglas, S; J Am Chem Soc 1995, V117, P2116 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D BIB ABS FCRDREF L22 2

L22 ANSWER 2 OF 9 CASREACT COPYRIGHT 2000 ACS
 AN 130:267680 CASREACT
 TI Synthesis of the phosphodisaccharide repeat of antigenic lipophosphoglycan of *Leishmania donovani* parasite
 AU Upreti, Mani; Vishwakarma, Ram A.
 CS Bio-organic Chemistry Laboratory, JNU Complex, National Institute of Immunology, Aruna Asaf Ali Marg, New Delhi, 110067, India
 SO Tetrahedron Lett. (1999), 40(13), 2619-2622
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB Synthesis of the immunol. important and structurally unusual phospho-disaccharide repeat unit (Galp1,4.beta.-Manp-1.alpha.-phosphate) of the lipophosphoglycan cell surface GPI mol. of the protozoan parasite *Leishmania donovani* has been carried out using lactose as the starting material. The synthesis provides a short and stereoselective route for the prepn. of this phospho-saccharide in a preparative scale.

RX(20) OF 28 - 4 STEPS



REF: Tetrahedron Lett., 40(13), 2619-2622; 1999

OF 9 CASREACT COPYRIGHT 2000 ACS

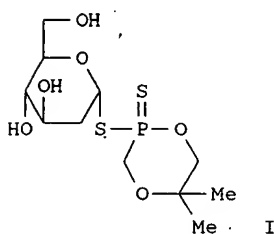
RE.CNT 26

RE

- (1) Arasappan, A; J Org Chem 1996, V61, P2401 CAPLUS
 - (2) Boger, D; J Am Chem Soc 1994, V116, P5647 CAPLUS
 - (3) Brown, G; Eur J Biochem 1996, V242, P410 CAPLUS
 - (4) Carver, M; Arch Biochem Biophys 1992, V295, P309 CAPLUS
 - (5) Carver, M; J Biol Chem 1991, V266, P10974 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

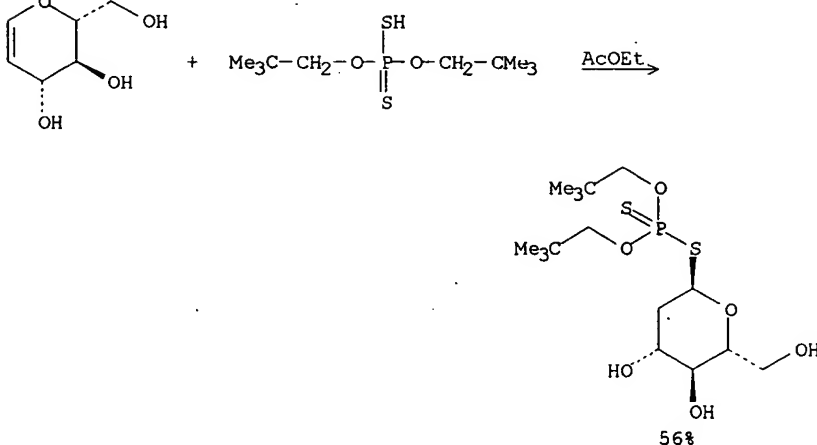
=> D BIB ABS FCRDREF L22 3

L22 ANSWER 3 OF 9 CASREACT COPYRIGHT 2000 ACS
 AN 122:31780 CASREACT
 TI Synthesis of unprotected 2-deoxyglycosyl donors, S-(2-deoxy-.alpha.-D-arabino-hexopyranosyl)-O,O-dialkylphosphorodithioates
 AU Kudelska, W.; Czyzewska-Chlebny, J.; Michalska, M.
 CS Lab. Organic Chem., Inst. Chemistry, Medical Univ., Lodz, 90-151, Pol.
 SO Pol. J. Chem. (1994), 68(9), 1767-73
 CODEN: PJCHDQ; ISSN: 0137-5083
 DT Journal
 LA English
 GI



AB Sugar-O-unprotected S-(2-deoxyglycosyl)phosphorodithioates, e.g. I, were synthesized by two routes: by Addn. of O,O-dialkylphosphorodithioic acids to unsubstituted D-glucal or deprotection of the adducts obtained by addn. of phosphorodithioic acids to 4,6-O-isopropylidene-D-glucal. These sugar-O-unprotected 2-deoxyglycosyl phosphorodithioates were obtained in high yield and their ability to act as glycosyl donors was demonstrated.

RX(4) OF 12



REF: Pol. J. Chem., 68(9), 1767-73; 1994

OF 9 CASREACT COPYRIGHT 2000 ACS

=> D BIB ABS FCRDREF L22 4

L22 ANSWER 4 OF 9 CASREACT COPYRIGHT 2000 ACS

AN 121:301176 CASREACT

TI Synthesis of 2-deoxy-.alpha.-D-arabino-hexopyranosyl phosphate and 2-deoxy-maltooligosaccharides with phosphorylase

AU Evers, Britta; Mischnick, Petra; Thiem, Joachim

CS Institut fuer Organische Chemie, Universitaet Hamburg, Martin-Luther-King-Platz 6, Hamburg, D-20146, Germany

SO Carbohydr. Res. (1994), 262(2), 335-41

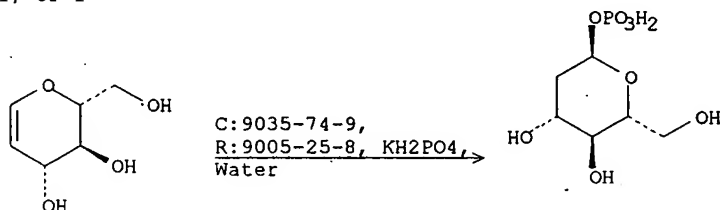
CODEN: CRBRAT; ISSN: 0008-6215

DT Journal

LA English

AB A convenient one-step synthesis of 2-deoxy-.alpha.-D-arabino-hexopyranosyl phosphate on a millimolar scale is described by reaction of potato phosphorylase with D-glucal at equimolar phosphate concn. Furthermore, in the presence of catalytic amts. of phosphate, a 2-deoxy-maltooligosaccharide is obtained from maltotetraose and D-glucal. The water-insol. oligosaccharide was isolated and characterized by ¹H and ¹³C NMR spectroscopy. An av. dp of 20 was thus detd.

RX(1) OF 1



2 Na
50%

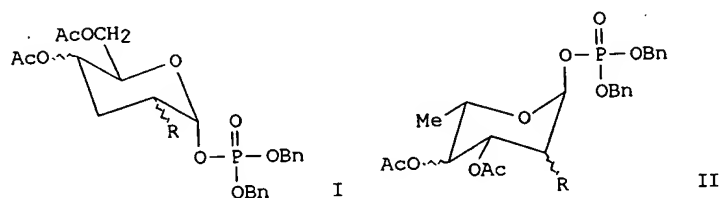
REF: Carbohydr. Res., 262(2), 335-41; 1994

NOTE: BUFFER SOLN., ION-EXCHANGE COLUMN ON WORKUP

OF 9 CASREACT COPYRIGHT 2000 ACS

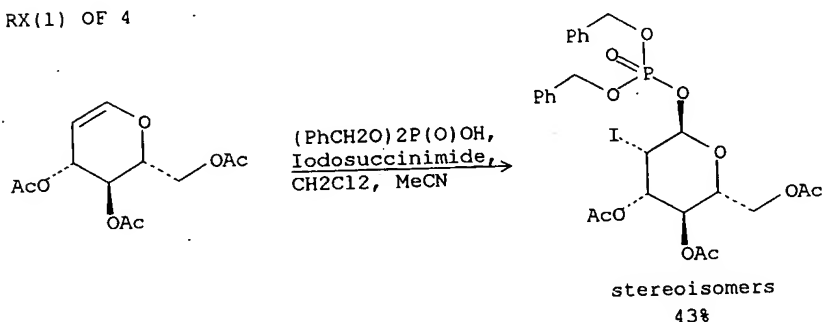
=> D BIB ABS FCRDREF L22 5

L22 ANSWER 5 OF 9 CASREACT COPYRIGHT 2000 ACS
 AN 120:135018 CASREACT
 TI Synthetic approaches to 2-deoxyglycosyl phosphates
 AU Niggemann, Jutta; Lindhorst, Thisbe K.; Walfort, Martina; Laupichler, Lothar; Sajus, Henry; Thiem, Joachim
 CS Inst. Org. Chem., Univ. Hamburg, Hamburg, D-2000/13, Germany
 SO Carbohydr. Res. (1993), 246, 173-83
 CODEN: CRBRAT; ISSN: 0008-6215
 DT Journal
 LA English
 GI



AB By the use of the N-iodosuccinimide procedure, various glycals could be converted into 2-deoxyglycosyl phosphates, e.g. I and II (R = H, iodo). The application of S-(2-deoxyglycosyl) and phosphorodithioates as glycosyl donors provided the most convenient way to dibenzyl 2-deoxyglycosyl phosphates.

RX(1) OF 4

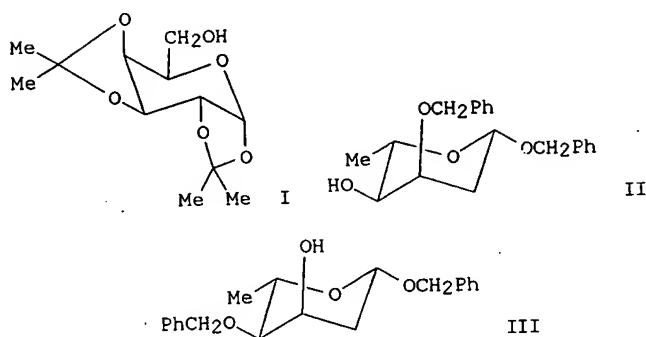


REF: Carbohydr. Res., 246,, 173-83; 1993

OF 9 CASREACT COPYRIGHT 2000 ACS

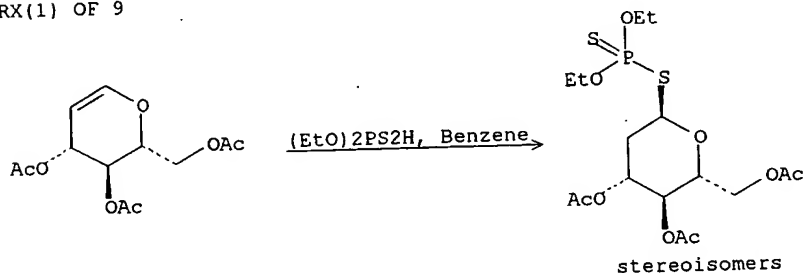
=> D BIB ABS FCRDREF L22 6

L22 ANSWER 6 OF 9 CASREACT COPYRIGHT 2000 ACS
 AN 118:169461 CASREACT
 TI Convenient iodonium-promoted stereoselective synthesis of
 2-deoxy-.alpha.-glycosides by use of S-(2-deoxyglycosyl)phosphorodithioate
 s as donors
 AU Laupichler, Lothar; Sajus, Henry; Thiem, Joachim
 CS Inst. Org. Chem., Univ. Hamburg, Hamburg, D-2000/13, Germany
 SO Synthesis (1992), (11), 1133-6
 CODEN: SYNTBF; ISSN: 0039-7881.
 DT Journal
 LA English
 GI



AB S-(2-Deoxyglycosyl)-O,O-di-Et phosphorodithioates, easily accessible from
 glycals, are convenient precursors for glycosylation in the presence of
 promoters such as N-iodosuccinimide or iodonium bis(2,4,6-
 trimethylpyridine) perchlorate. In a series of transformations both the
 .alpha.- and .beta.-glycosyl donors were attached stereoselectively to
 acceptor sugar mols. I, II, and III in a short reaction times.

RX(1) OF 9

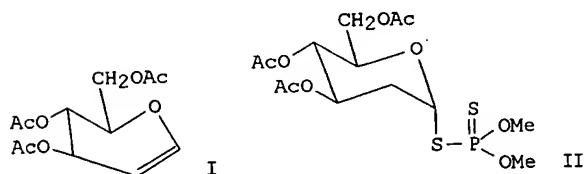


REF: Synthesis, (11), 1133-6; 1992
 NOTE: 100% overall

OF 9 CASREACT COPYRIGHT 2000 ACS

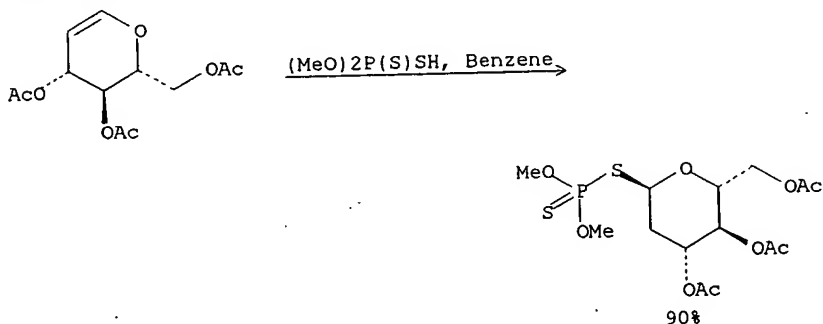
=> D BIB ABS FCRDREF L22 7

L22 ANSWER 7 OF 9 CASREACT COPYRIGHT 2000 ACS
 AN 109:231379 CASREACT
 TI Stereoselective synthesis of S-(2-deoxy-.alpha.-D-glycosyl) phosphorodithioates and of their (2R)-2-deoxy-2-deuterio analogs. Novel route to C-2 deuterium labeled 2-deoxymonosaccharides
 AU Borowiecka, Joanna; Lipka, Pawel; Michalska, Maria
 CS Inst. Chem., Med. Acad., Lodz, 90-151, Pol.
 SO Tetrahedron (1988), 44(7), 2067-76
 CODEN: TETRAB; ISSN: 0040-4020
 DT Journal
 LA English
 GI



AB Addn. of O,O-dialkylphosphorodithioic acids to fully protected 1,2-unsatd. hexo- and pentopyranoses gives S-(2-deoxyglycosyl) phosphorodithioates in quant. yield and high stereoselectivity with respect to the .alpha.-isomer. For example, triacetylglucal I was treated with (MeO)2P(S)SH in C6H6 to give 90% deoxyhexopyranosyl phosphorodithioate II. The stereochem. of this reaction is cis as demonstrated by the addn. of deuterated O,O-dialkylphosphorodithioic acids to I which gives exclusively the .alpha.-dithiophosphates of (2R)-2-deoxy-2-deuterio-D-arabino-hexopyranose. This result provides an efficient and fully stereoselective method of labeling of the deoxy function in 2-deoxy monosaccharides and their glycosylic derivs.

RX(2) OF 18



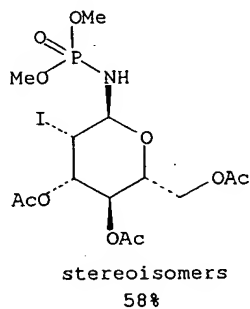
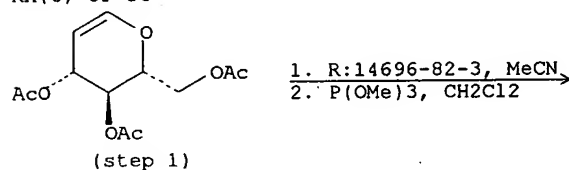
REF: Tetrahedron, 44(7), 2067-76; 1988

OF 9 CASREACT COPYRIGHT 2000 ACS

=> D BIB ABS FCRDREF L22 8

L22 ANSWER 8 OF 9 CASREACT COPYRIGHT 2000 ACS
 AN 109:55124 CASREACT
 TI Synthesis of 2-deoxy-2-iodoglycosyl phosphoramidates
 AU Lafont, Dominique; Descotes, Gerard
 CS Lab. Chim. Org., Univ. Lyon I, Villeurbanne, F-69622, Fr.
 SO Carbohydr. Res. (1987), 166(2), 195-209
 CODEN: CRBRAT; ISSN: 0008-6215
 DT Journal
 LA French
 AB Addn. of IN3 to acetylated, benzylated, and methoxymethylated glycals yielded 2-deoxy-2-iodoglycosyl azides and 1,2-trans configuration. Stereoselectivity of the reaction favored the manno and talo configurations starting from D-glucal and D-galactal, resp. With D-xytal derivs., the stereoselectivity depended on the nature of the substituents. The Staudinger reaction of 2-deoxy-2-iodoglycosyl azides with P(OMe)₃ led to the 2-deoxy-2-iodoglycosyl phosphoramidates in high yield.

RX(6) OF 36



REF: Carbohydr. Res., 166(2), 195-209; 1987

OF 9 CASREACT COPYRIGHT 2000 ACS

=> D BIB ABS FCRDREF L22 9

L22 ANSWER 9 OF 9 CASREACT COPYRIGHT 2000 ACS

AN 108:22160 CASREACT

TI Glycosylimidates. Part 28. Direct 3,6-di-O-protection of glucal and galactal

AU Kinzy, Willy; Schmidt, Richard R.

CS Fak. Chem., Univ. Konstanz, Konstanz, D-7750, Fed. Rep. Ger.

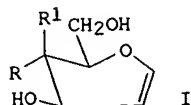
SO Tetrahedron Lett. (1987), 28(18), 1981-4

CODEN: TELEAY; ISSN: 0040-4039

DT Journal

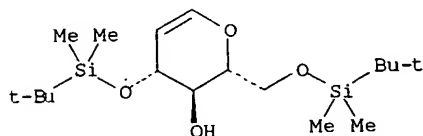
LA English

GI

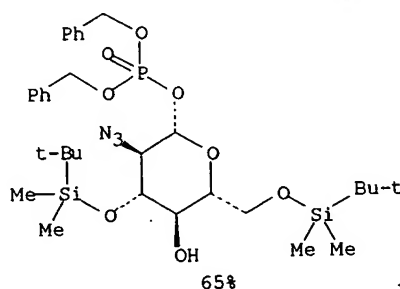


AB Me₃CSiMe₂Cl is a useful reagent for direct 3,6-di-O-protection of D-glucal (I; R = OH, R₁ = H) and D-galactal (I; R = H, R₁ = OH). The unprotected 4-OH group is still accessible to other protective groups, providing, after selective 3,6-O-desilylation, 4-O-protected derivs. 2-Azido group introduction does not even require 4-O-protection thus affording valuable 2-azido-2-deoxy-gluco- and -galactopyranosyl donors for glycoconjugate synthesis by short and efficient routes.

RX(32) OF 37 - 3 STEPS



1. (NH₄)₂Ce(NO₃)₆,
NaN₃, NaNO₂
2. Cl₃CCN, NaH, K₂CO₃
3. (PhCH₂O)₂P(O)OH,
BF₃-Et₂O



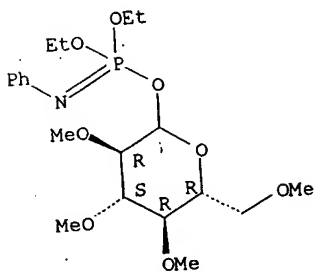
REF: Tetrahedron Lett., 28(18), 1981-4; 1987

OF 9 CASREACT COPYRIGHT 2000 ACS

=> d bib abs hitstr 140 6

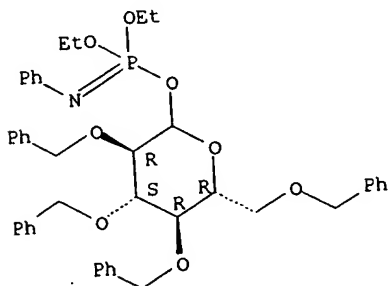
L40 ANSWER 6 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1997:584704 HCAPLUS
 DN 127:234525
 TI Glycosyl donors with phosphorimidate leaving groups for either .alpha.- or .beta.-glycosidation
 AU Pan, Shifeng; Li, Hao; Hong, Feng; Yu, Biao; Zhao, Kang
 CS Dep. Chemistry, New York Univ., New York, NY, 10003, USA
 SO Tetrahedron Lett. (1997), 38(35), 6139-6142
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier
 DT Journal
 LA English
 AB Glycosyl N-Ph di-Et phosphorimidates, readily prepd. via the Staudinger reaction of glycosyl di-Et phosphites with Ph azide, served as efficient glycosyl donors for the formation of either 1,2-cis or 1,2-trans glycosidic bonds under selected reaction conditions.
 IT 195251-21-9P 195251-22-0P 195251-23-1P
 195251-24-2P 195251-25-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (glycosyl donors with phosphorimidate leaving groups for either .alpha.- or .beta.-glycosidation)
 RN 195251-21-9 HCAPLUS
 CN D-Glucopyranose, 2,3,4,6-tetra-O-methyl-, diethyl phenylphosphorimidate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 195251-22-0 HCAPLUS
 CN D-Glucopyranose, 2,3,4,6-tetrakis-O-(phenylmethyl)-, diethyl phenylphosphorimidate (9CI) (CA INDEX NAME)

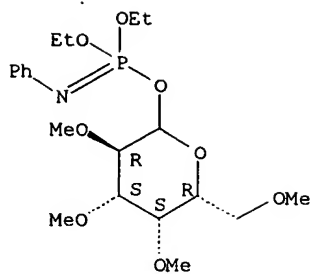
Absolute stereochemistry.



RN 195251-23-1 HCAPLUS
 CN D-Galactopyranose, 2,3,4,6-tetra-O-methyl-, diethyl phenylphosphorimidate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

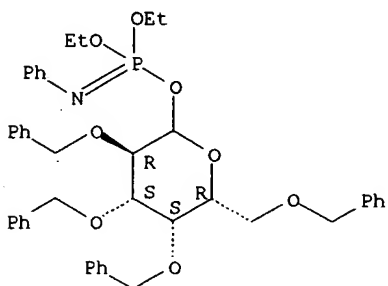
SEARCHED BY SUSAN HANLEY 305-4053



RN 195251-24-2 HCAPLUS

CN D-Galactopyranose, 2,3,4,6-tetrakis-O-(phenylmethyl)-, diethyl phenylphosphorimidate (9CI) (CA INDEX NAME)

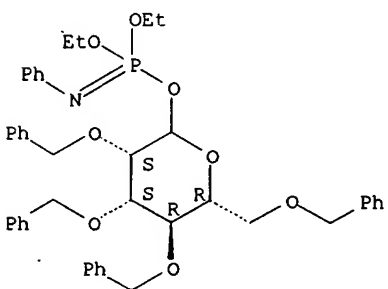
Absolute stereochemistry.



RN 195251-25-3 HCAPLUS

CN D-Mannopyranose, 2,3,4,6-tetrakis-O-(phenylmethyl)-, diethyl phenylphosphorimidate (9CI) (CA INDEX NAME)

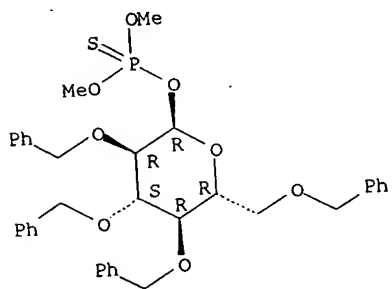
Absolute stereochemistry.



=> d bib abs hitstr 140 5

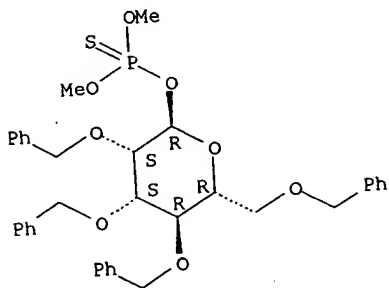
L40 ANSWER 5 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1998:463658 HCAPLUS
 DN 129:203152
 TI Preparation of glycosyl dimethylthiophosphates and their application as glycosyl donors
 AU Zhang, Guangtao; Yu, Biao; Deng, Shaojiang; Hui, Yongzheng
 CS The University of Science and Technology of China, Hefei, 230026, Peop. Rep. China
 SO J. Carbohydr. Chem. (1998), 17(4&5), 547-556
 CODEN: JCACDM; ISSN: 0732-8303
 PB Marcel Dekker, Inc.
 DT Journal
 LA English
 AB Benzyl- and acetyl-protected glycosyl dimethylthiophosphates were readily prepd. from corresponding 1-hydroxyl sugars in good yield, and acted as very stable and efficient glycosyl donors in the construction of glycosidic bonds in the presence of various promoters.
 IT 212119-70-5P 212119-72-7P 212119-73-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of glycosyl dimethylthiophosphates and their application as glycosyl donors)
 RN 212119-70-5 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2,3,4,6-tetrakis-O-(phenylmethyl)-, O,O-dimethyl phosphorothioate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 212119-72-7 HCAPLUS
 CN .alpha.-D-Mannopyranose, 2,3,4,6-tetrakis-O-(phenylmethyl)-, O,O-dimethyl phosphorothioate (9CI) (CA INDEX NAME)

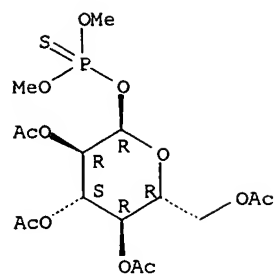
Absolute stereochemistry. Rotation (+).



RN 212119-73-8 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2,3,4,6-tetraacetate 1-(O,O-dimethyl phosphorothioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

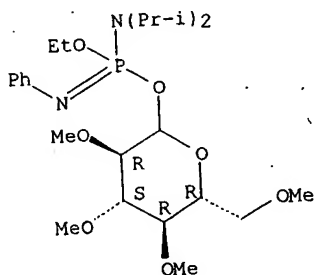
SEARCHED BY SUSAN HANLEY 305-4053



=> d bib abs hitstr 140 7

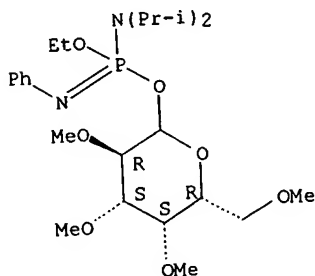
L40 ANSWER 7 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1997:506041 HCAPLUS
 DN 127:190915
 TI Glycosyl phosphoramidimides as versatile glycosyl donors
 AU Chen, Mei-Jin; Ravindran, Krish; Landry, Donald W.; Zhao, Kang
 CS Dep. of Chemistry, New York University, New York, NY, 10003, USA
 SO Heterocycles (1997), 45(7), 1247-1250
 CODEN: HTCYAM; ISSN: 0385-5414
 PB Japan Institute of Heterocyclic Chemistry
 DT Journal
 LA English
 AB A Staudinger reaction of glycosyl phosphoramidites with Ph azide provides an efficient procedure to access phosphoramidimides. Their application as glycosyl donors in glycosidation is also described.
 IT 194208-47-4P 194208-48-5P 194208-49-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (glycosyl phosphoramidimides as versatile glycosyl donors)
 RN 194208-47-4 HCAPLUS
 CN D-Glucopyranose, 2,3,4,6-tetra-O-methyl-, ethyl N,N-bis(1-methylethyl)-N'-phenylphosphoramidimide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 194208-48-5 HCAPLUS
 CN D-Galactopyranose, 2,3,4,6-tetra-O-methyl-, ethyl N,N-bis(1-methylethyl)-N'-phenylphosphoramidimide (9CI) (CA INDEX NAME)

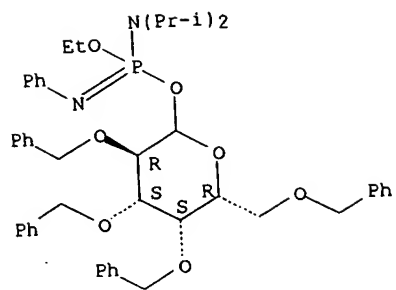
Absolute stereochemistry.



RN 194208-49-6 HCAPLUS
 CN D-Galactopyranose, 2,3,4,6-tetrakis-O-(phenylmethyl)-, ethyl N,N-bis(1-methylethyl)-N'-phenylphosphoramidimide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

LEE 09/413,381



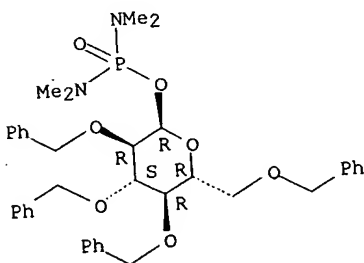
SEARCHED BY SUSAN HANLEY 305-4053

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=> d bib abs hitstr 140 8

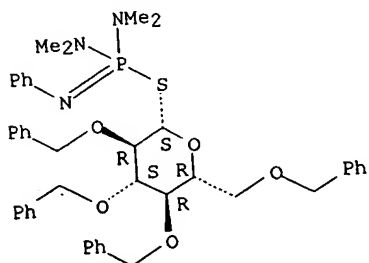
L40 ANSWER 8 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1997:484315 HCAPLUS
 DN 127:176626
 TI Oligosaccharide synthesis based on glycosyl donors and acceptors carrying phosphorus-containing leaving groups
 AU Hashimoto, Shun-ichi; Sakamoto, Hiroki; Honda, Takeshi; Ikegami, Shiro
 CS Fac. Pharmaceutical Sciences, Hokkaido Univ., Sapporo, 060, Japan
 SO Tetrahedron Lett. (1997), 38(29), 5181-5184
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier
 DT Journal
 LA English
 AB Efficient synthetic strategy for oligosaccharides has been developed by exploiting the difference in anomeric reactivity between glycosyl donors and acceptors carrying phosphorus-contg. leaving groups, wherein the tetramethylphosphorodiamidate group plays a pivotal role as anomeric protective group as well as leaving group.
 IT 143520-19-8 166733-02-4 193953-70-7
 RL: RCT (Reactant)
 (oligosaccharide prepn. based on glycosyl donors and acceptors carrying phosphorus-contg. leaving groups)
 RN 143520-19-8 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2,3,4,6-tetrakis-O-(phenylmethyl)-, tetramethylphosphorodiamidate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 166733-02-4 HCAPLUS
 CN .beta.-D-Glucopyranose, 2,3,4,6-tetrakis-O-(phenylmethyl)-1-thio-, N,N,N',N'-tetramethyl-N''-phenylphosphorodiamidimide (9CI) (CA INDEX NAME)

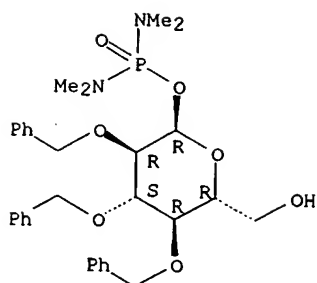
Absolute stereochemistry.



RN 193953-70-7 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2,3,4-tris-O-(phenylmethyl)-, 1-(tetramethylphosphorodiamidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

SEARCHED BY SUSAN HANLEY 305-4053



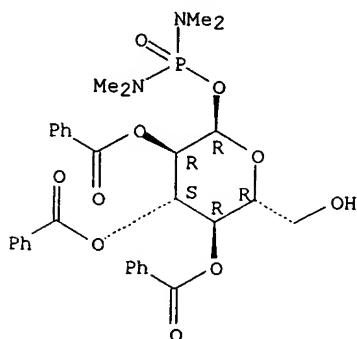
IT 193953-61-6P 193953-62-7P 193953-63-8P
 193953-64-9P 193953-65-0P 193953-66-1P
 193953-68-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (oligosaccharide prepn. based on **glycosyl donors**
 and acceptors carrying **phosphorus**-contg. leaving groups)

RN 193953-61-6 HCAPLUS

CN .alpha.-D-Glucopyranose, 2,3,4-tribenzoate 1-(tetramethylphosphorodiamidate) (9CI) (CA INDEX NAME)

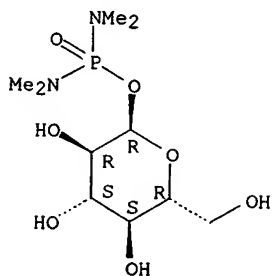
Absolute stereochemistry.



RN 193953-62-7 HCAPLUS

CN .alpha.-D-Glucopyranose, 1-(tetramethylphosphorodiamidate) (9CI) (CA INDEX NAME)

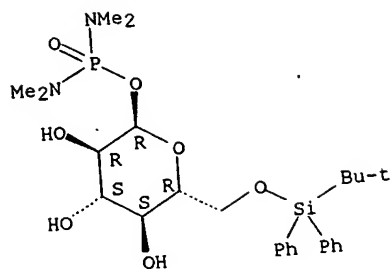
Absolute stereochemistry.



RN 193953-63-8 HCAPLUS

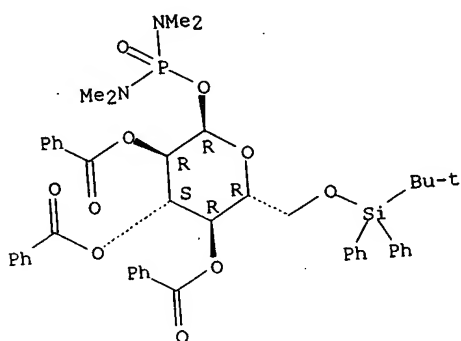
CN .alpha.-D-Glucopyranose, 6-O-[(1,1-dimethylethyl)diphenylsilyl]-, 1-(tetramethylphosphorodiamidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



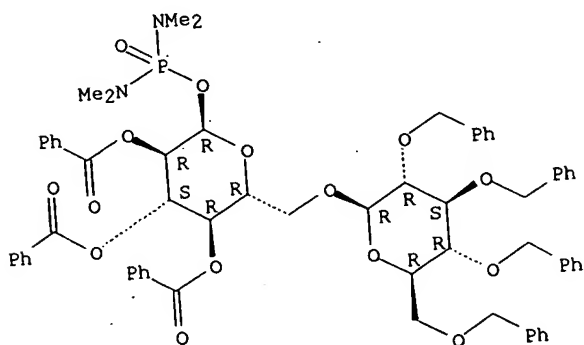
RN 193953-64-9 HCAPLUS
 CN .alpha.-D-Glucopyranose, 6-O-[(1,1-dimethylethyl)diphenylsilyl]-, 2,3,4-tribenzoate 1-(tetramethylphosphorodiamidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 193953-65-0 HCAPLUS
 CN .alpha.-D-Glucopyranose, 6-O-[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]-, 2,3,4-tribenzoate 1-(tetramethylphosphorodiamidate) (9CI) (CA INDEX NAME)

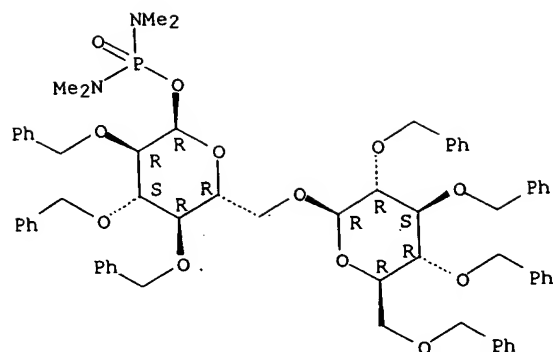
Absolute stereochemistry.



RN 193953-66-1 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2,3,4-tris-O-(phenylmethyl)-6-O-[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]-, tetramethylphosphorodiamidate (9CI) (CA INDEX NAME)

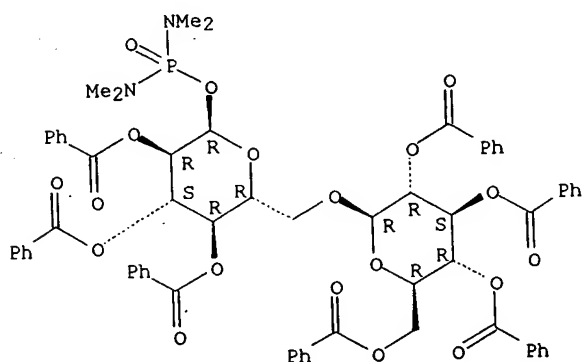
Absolute stereochemistry.

SEARCHED BY SUSAN HANLEY 305-4053



RN 193953-68-3 HCAPLUS
 CN .alpha.-D-Glucopyranose, 6-O-(2,3,4,6-tetra-O-benzoyl-.beta.-D-glucopyranosyl)-, 2,3,4-tribenzoate 1-(tetramethylphosphorodiamidate) (9CI) (CA INDEX NAME)

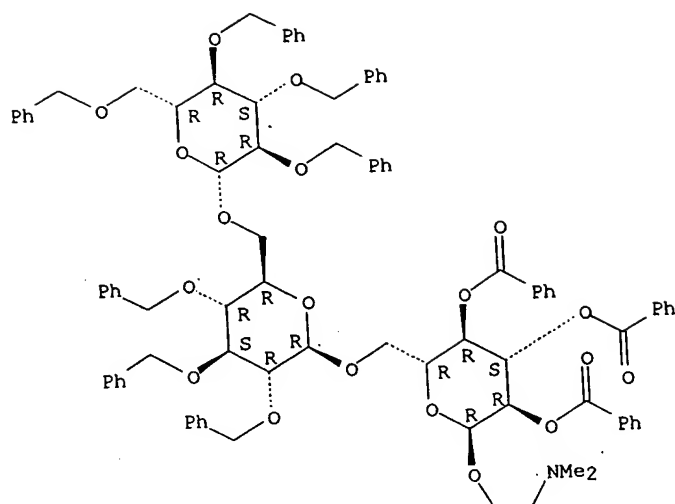
Absolute stereochemistry.



IT 193953-67-2P 193953-72-9P 193953-73-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (oligosaccharide prepn. based on **glycosyl donors**
 and acceptors carrying **phosphorus**-contg. leaving groups)
 RN 193953-67-2 HCAPLUS
 CN .alpha.-D-Glucopyranose, O-2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-2,3,4-tris-O-(phenylmethyl)-.beta.-D-glucopyranosyl-(1.fwdarw.6)-, 2,3,4-tribenzoate 1-(tetramethylphosphorodiamidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

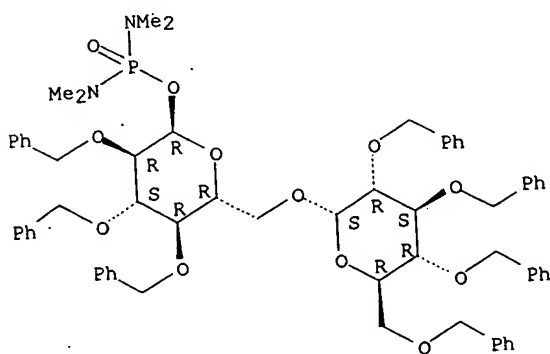


PAGE 2-A



RN 193953-72-9 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2,3,4-tris-O-(phenylmethyl)-6-O-[2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-glucopyranosyl]-, tetramethylphosphorodiamidate (9CI) (CA INDEX NAME)

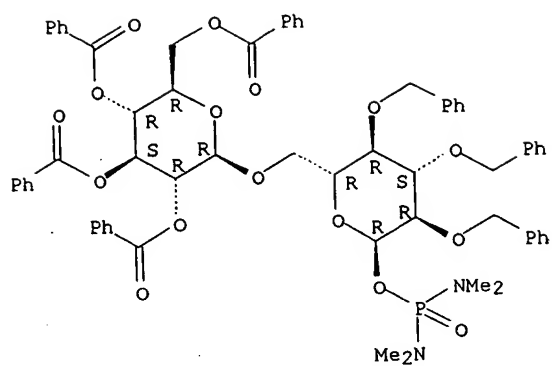
Absolute stereochemistry.



RN 193953-73-0 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2,3,4-tris-O-(phenylmethyl)-6-O-(2,3,4,6-tetra-O-benzoyl-.beta.-D-glucopyranosyl)-, tetramethylphosphorodiamidate (9CI) (CA INDEX NAME)

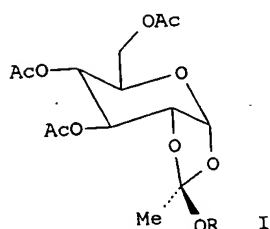
Absolute stereochemistry.

SEARCHED BY SUSAN HANLEY 305-4053



=> d bib abs hitstr 140 9

L40 ANSWER 9 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1996:234033 HCAPLUS
 DN 125:33964
 TI O-Glycoside synthesis under neutral conditions in concentrated solutions of LiClO₄ in organic solvents employing O-acyl-protected glycosyl donors
 AU Boehm, Gerd; Waldmann, Herbert
 CS Inst. Organische Chemie, Univ. Karlsruhe, Karlsruhe, D-76128, Germany
 SO Liebig's Ann. (1996), (4), 621-5
 CODEN: LANAEM; ISSN: 0947-3440
 DT Journal
 LA English
 OS CASREACT 125:33964
 GI

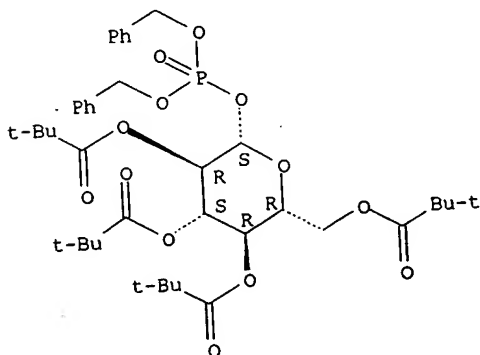


AB O-glycosides of pivaloyl-protected glucose can be synthesized under neutral conditions in moderate yields by employing pivaloylated .beta.-glucosyl fluoride and the resp. .beta.-benzyl phosphate as glycosyl donors and 1 M solns. of LiClO₄ in CH₂Cl₂ or CHCl₃ as reaction media. The acetyl-protected .alpha.- or .beta.-configured glucosyl trichloroacetimidates were converted into orthoesters of type I which were isolated in moderate to high yields. Under these conditions, acetyl-protected glycosyl bromides and o-pivaloylated glycosyl trichloroacetimidates were not converted to the desired o-glycosides.

IT 169062-51-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of O-glycosides under neutral conditions in concd. org. LiClO₄ solns. with O-acyl-protected glycosyl donors)

RN 169062-51-5 HCAPLUS
 CN .beta.-D-Glucopyranose, 1-[bis(phenylmethyl) phosphate] 2,3,4,6-tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

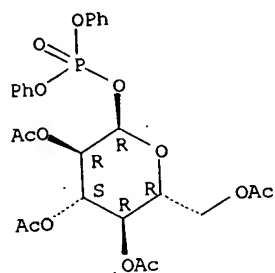


IT 141607-22-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 SEARCHED BY SUSAN HANLEY 305-4053

LEE 09/413,381

(prepn. of O-glycosides under neutral conditions in concd. org. LiClO_4
solns. with O-acyl-protected **glycosyl donors**)
RN 141607-22-9 HCAPLUS
CN .alpha.-D-Glucopyranose, 2,3,4,6-tetraacetate 1-(diphenyl phosphate) (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 140 10

L40 ANSWER 10 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 1996:234032 HCAPLUS

DN 125:33963

TI O-Glycoside synthesis under neutral conditions in concentrated solutions of LiClO₄ in organic solvents employing benzyl-protected glycosyl donors

AU Boehm, Gerd; Waldmann, Herbert

CS Inst. Organische Chemie, univ. Karlsruhe, Karlsruhe, D-76128, Germany

SO Liebig's Ann. (1996), (4), 613-19

CODEN: LANAEM; ISSN: 0947-3440

DT Journal

LA English

OS CASREACT 125:33963

AB

Benzyl-protected glucosyl trichloroacetimidates, phosphates, and halides are activated under neutral conditions and without the addn. of any further promoter in 1 M solns. of LiClO₄ in either, CH₂Cl₂, CHCl₃, or CH₃CN and react under these conditions with various alcs. to give the corresponding glycosides in moderate yields. If the .alpha.-imide or the .beta.-phosphate is used as glycosyl donor, in the majority of the cases 1:1 mixts. of the anomers are obtained. In contrast, the .beta.-imide gives a distinct excess of the .alpha.-glycosides and if the .alpha.-phosphate is employed, the .beta.-anomers are formed preferentially. Whereas the glycosyl chloride and the glycosyl bromide are not the donors of choice under these conditions, from the .beta.-fluoride the desired O-glycosides are readily obtained. In 3-5 M solns. of LiClO₄ in Et₂O instead of the expected glycosides benzyl-protected 1,6-anhydroglucose is formed and imidazolylcarbonyl-activated benzyl-protected glucose reacts with alcs. to give glycosyl carbonates. Whereas CH₂Cl₂ and CHCl₃ do not influence the stereoselectivity of the glycosylations in Et₂O or CH₃CN, the solvent seems to participate in the steric control of the O-glycoside formation.

IT 38768-84-2 82300-58-1

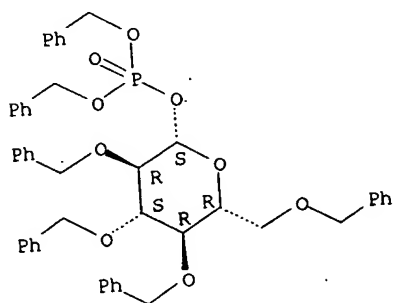
RL: RCT (Reactant)

(prepn. of O-glycosides under neutral conditions in concd. org. of LiClO₄ solns. with benzyl-protected **glycosyl donors**)

RN 38768-84-2 HCAPLUS

CN .beta.-D-Glucopyranose, 2,3,4,6-tetrakis-O-(phenylmethyl)-, bis(phenylmethyl) phosphate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

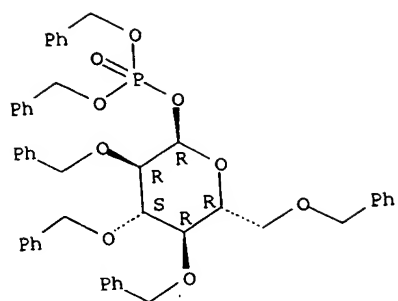


RN 82300-58-1 HCAPLUS

CN .alpha.-D-Glucopyranose, 2,3,4,6-tetrakis-O-(phenylmethyl)-, bis(phenylmethyl) phosphate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

LEE 09/413,381



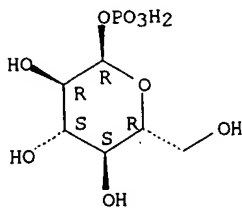
SEARCHED BY SUSAN HANLEY 305-4053

=> d bib abs hitstr 140 11

L40 ANSWER 11 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1995:468796 HCAPLUS
 DN 122:212282
 TI Enzymic manufacture of tannin glycosides
 IN Kitao, Satoru; Shimaoka, Yoko; Ariga, Toshiaki; Horiuchi, Tatsuo; Sekine, Hiroshi
 PA Kikkoman Corp, Japan
 SO Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07016095	A2	19950120	JP 1993-183503	19930630
AB	Tannin glycosides are manufd. by treatment of tannins with glycosyltransferase in the presence of sugar donors. Tannic acids (200 mg) were treated with 10 mL aq. soln. contg. 400 mg sucrose/mL and sucrose phosphorylase at 42.degree. and pH 7.5 for 17 h to manuf. glycosides, which released 12.56 mg glucose by hydrolysis with aq. CF ₃ CO ₂ H at 100.degree. for 15 h. The tannic acid glycosides showed no coloring (no increase in absorbance at 420 nm) upon irradiation by light.				
IT	59-56-3, Glucose 1-phosphate RL: RCT (Reactant) (manuf. of tannin glycosides by treatment of tannin and sugar donors with glycosyltransferase)				
RN	59-56-3 HCAPLUS				
CN	.alpha.-D-Glucopyranose, 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)				

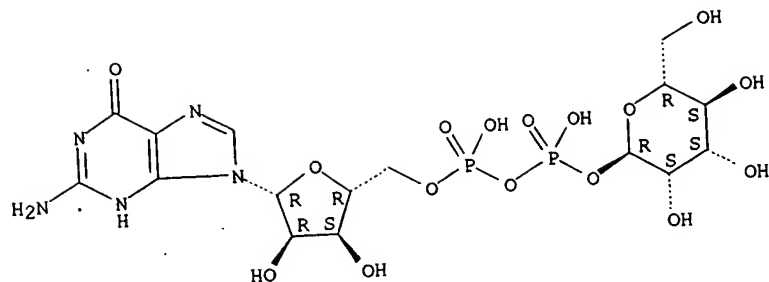
Absolute stereochemistry.



=> d bib abs hitstr 140 12

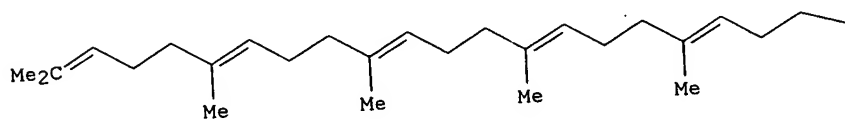
L40 ANSWER 12 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1995:354121 HCAPLUS
 DN 122:259291
 TI Mannolipid donor specificity of glycosylphosphatidylinositol
 mannosyltransferase-I (GPIMT-I) determined with an assay system utilizing
 mutant CHO-K1 cells
 AU DeLuca, Alex W.; Rush, Jeffrey S.; Lehrman, Mark A.; Waechter, C. J.
 CS Dep. Pharmacology, UT-Southwestern Med. Center, Dallas, TX, 75235-9041,
 USA
 SO Glycobiology (1994), 4(6), 909-16
 CODEN: GLYCE3; ISSN: 0959-6658
 DT Journal
 LA English
 AB Microsomal glycosylphosphatidylinositol mannosyltransferase I (GPIMT-I)
 catalyzes the transfer of a mannosyl residue from .beta.-
 mannosylphosphoryldolichol (.beta.-Man-P-Dol) to glucosamine-
 .alpha.(1,6)(acyl)phosphatidylinositol (GlcN-aPI) to form
 Man.alpha.(1,4)GlcN-aPI (ManGlcN-aPI), an intermediate in
 glycosylphosphatidylinositol (GPI) synthesis. Whereas the transfer of
 [3H]mannosyl units to endogenous GlcN-aPI was not seen when membrane
 fractions from normal CHO K1 cells were incubated with exogenous
 [3H]Man-P-Dol, GPIMT-I activity could be characterized with an in vitro
 enzyme assay system employing membrane fractions from Lec15 or Lec35
 cells. These CHO cell mutants apparently contained elevated levels of
 endogenous GlcN-aPI due to the inability to synthesize (Lec15) or utilize
 (Lec35) .beta.-Man-P-Dol in vivo. The presence of a satd.
 .alpha.-isoprene unit in the dolichyl moiety was required for optimal
 GPIMT-I activity since .beta.-mannosylphosphorylpolyprenol
 (.beta.-Man-P-Poly), which contains a fully unsatd. polyisoprenyl chain,
 was only 50% as effective as .beta.-[3H]Man-P-Dol as a mannosyl donor.
 When .beta.-[3H]Man-P-Dol and .alpha.-[3H]Man-P-Dol were compared as
 substrates, GPIMT-I exhibited a strict stereospecificity for the
 mannosyl contg. the .beta.-mannosyl-phosphoryl linkage.
 .beta.-[3H]Man-P-dolichols contg. 11 or 19 isoprenyl units were equally
 effective substrates for GPIMT-I. Membrane fractions from Lec 9, a CHO
 mutant that apparently lacks polyprenol reductase activity and synthesizes
 very little .beta.-Man-P-Dol, but accumulates .beta.-Man-P-Poly,
 synthesized no detectable Man-GlcN-aPI when incubated with
 .beta.-[3H]Man-P-Dol in vitro. This indirect assay suggested that
 GlcN-aPI does not accumulate in Lec 9 cells, possibly because it is
 mannosylated via .beta.-Man-P-Poly, or perhaps the small amt. of Man-P-Dol
 formed by the mutant in vivo. These expts. demonstrated that: (1)
 membrane fractions from the CHO mutants, Lec15 and Lec35, provide a useful
 system for the characterization of GPIMT-I activity; (2) GPIMT-I utilizes
 Man-P-Dol or Man-P-Poly as direct mannosyl donors for Man-GlcN-aPI
 synthesis, although Man-P-Poly is used less efficiently; and (3) the
 transfer of mannosyl residues from Man-P-Dol to GlcN-aPI is stereospecific
 for mannosyl substrates contg. mannosyl-phosphoryl linkages of the
 .beta.-configuration.
 IT 3123-67-9, GDP-mannose 55331-63-0 150133-01-0
 157660-59-8 157660-61-2
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
 (mannolipid donor specificity of
 glycosylphosphatidylinositol mannosyltransferase-I detd. with
 assay system utilizing mutant CHO-K1 cells)
 RN 3123-67-9 HCAPLUS
 CN Guanosine 5'-(trihydrogen diphosphate), P'-.alpha.-D-mannopyranosyl ester
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

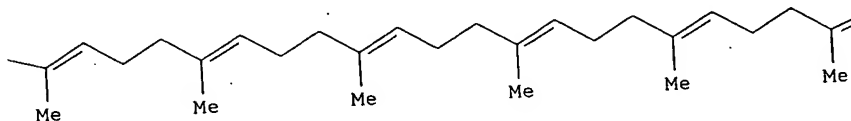


RN 55331-63-0 HCAPLUS
 CN .alpha.-D-Mannopyranose, 1-(3,7,11,15,19,23,27,31,35,39,43,47,51,55,59,63,
 67,71,75-nonadecamethyl-6,10,14,18,22,26,30,34,38,42,46,50,54,58,62,66,70,
 74-hexaheptacontaoctadecaenyl hydrogen phosphate) (9CI) (CA INDEX NAME)

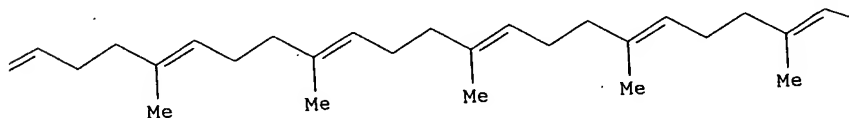
PAGE 1-A



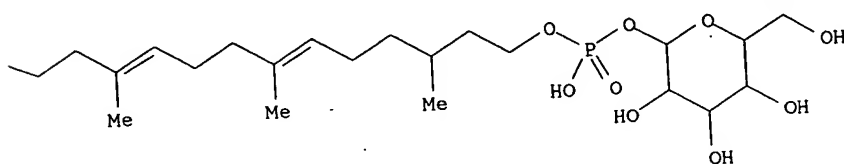
PAGE 1-B



PAGE 1-C

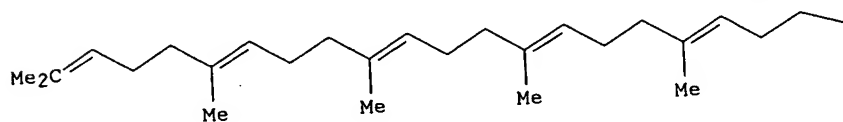


PAGE 1-D

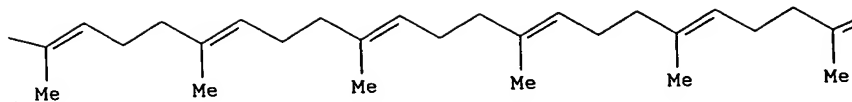


RN 150133-01-0 HCAPLUS
 CN .beta.-D-Mannopyranose, 1-(3,7,11,15,19,23,27,31,35,39,43,47,51,55,59,63,6
 7,71,75-nonadecamethyl-6,10,14,18,22,26,30,34,38,42,46,50,54,58,62,66,70,7
 4-hexaheptacontaoctadecaenyl hydrogen phosphate) (9CI) (CA INDEX NAME)

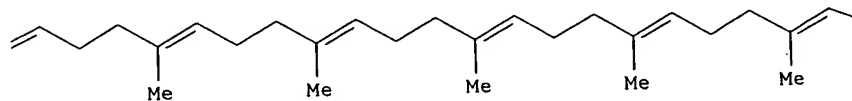
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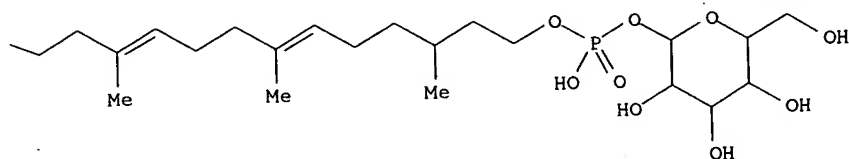
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PAGE 1-C

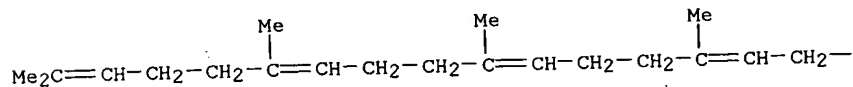


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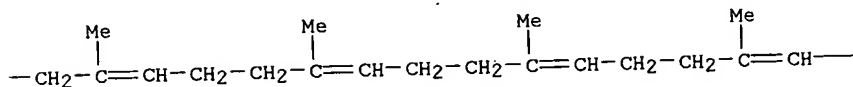


RN 157660-59-8 HCAPLUS
 CN .beta.-D-Mannopyranose, 1-(3,7,11,15,19,23,27,31,35,39,43-undecamethyl-
 6,10,14,18,22,26,30,34,38,42-tetratetracontadecaenyl hydrogen phosphate)
 (9CI) (CA INDEX NAME)

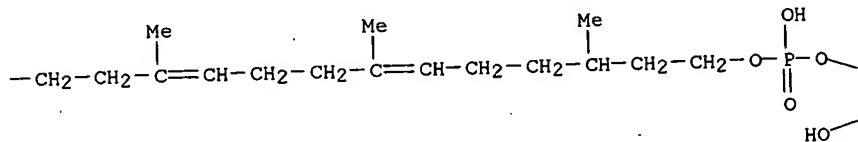
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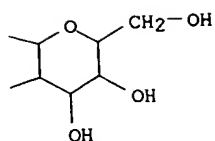
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PAGE 1-C



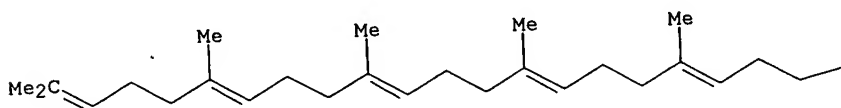
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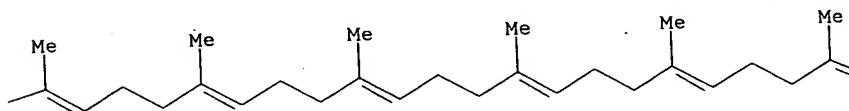
RN 157660-61-2 HCAPLUS
 CN .beta.-D-Mannopyranose, 1-(3,7,11,15,19,23,27,31,35,39,43,47,51,55,59,63,67,71,75-nonadecamethyl-2,6,10,14,18,22,26,30,34,38,42,46,50,54,58,62,66,70,74-hexaheptacontanonadecaenyl hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

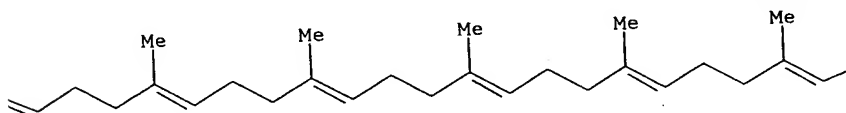
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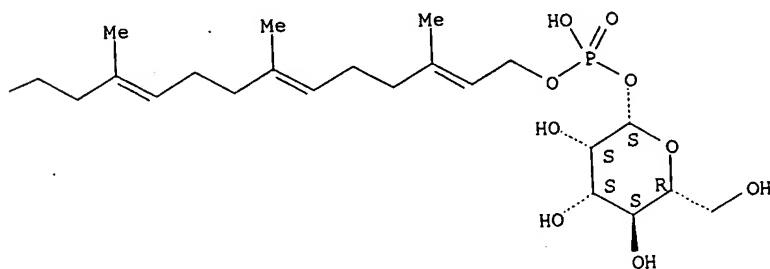
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PAGE 1-C



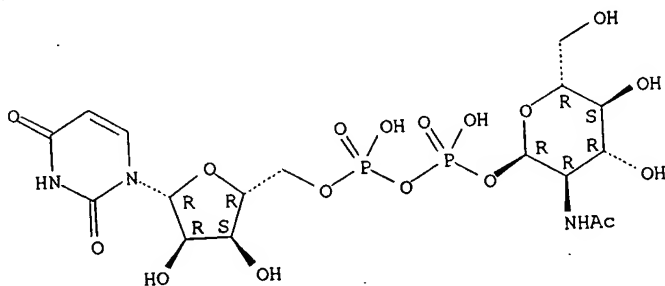
PAGE 1-D



=> d bib abs hitstr 140 13

L40 ANSWER 13 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1993:643647. HCAPLUS
 DN 119:243647
 TI The participation of ribosomes in protein glycosylation. Interaction of the ribosome-UDP-N-acetyl-glucosamine complex with dolichol phosphate
 AU Paszkiewicz-Gadek, Anna; Porowska, Halina; Galasinski, Wladyslaw
 CS Inst. Chem., Med. Acad., Bialystok, 15-230, Pol.
 SO Acta Biochim. Pol. (1992), 39(3), 251-64
 CODEN: ABPLAF; ISSN: 0001-527X
 DT Journal
 LA English
 AB UDP-N-acetylglucosamine can be bound by pure ribosomes. The N-acetylglucosamine-1-P moiety can be transferred from the ribosome-UDP-N-acetylglucosamine complex onto dolichol phosphate. Evidence is presented that N-acetylglucosamine bound to dolichol phosphate can be transferred to the nascent peptide synthesized on the ribosome.
 IT 528-04-1, UDP N-acetylglucosamine
 RL: BIOL (Biological study)
 (ribosome interaction with, acetylglucosamine **phosphate transfer to dolichol phosphate** in, protein **glycosylation** in relation to)
 RN 528-04-1 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-[2-(acetylamino)-2-deoxy-.alpha.-D-glucopyranosyl] ester (9CI) (CA INDEX NAME)

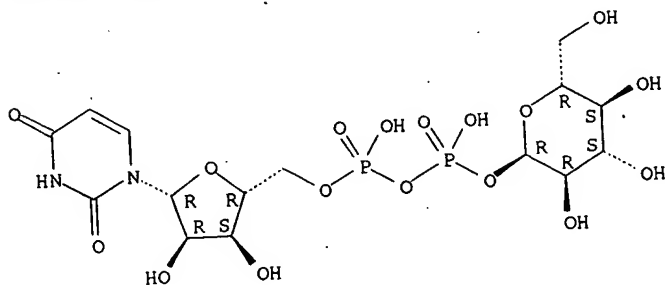
Absolute stereochemistry.



=> d bib abs hitstr 140 14

L40 ANSWER 14 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1992:403103 HCAPLUS
 DN 117:3103
 TI Purification to apparent homogeneity and partial characterization of rat liver UDP-glucose:glycoprotein glucosyltransferase
 AU Trombetta, Sergio E.; Parodi, Armando J.
 CS Inst. Invest. Bioquim. "Fundacion Campomar", Buenos Aires, 1405, Argent.
 SO J. Biol. Chem. (1992), 267(13), 9236-40
 CODEN: JBCHA3; ISSN: 0021-9258
 DT Journal
 LA English
 AB The UDP-glucose:glycoprotein glucosyltransferase is a sol. protein of the endoplasmic reticulum that catalyzes the glucosylation of protein-linked, glucose-free, high mannose-type oligosaccharides. In vivo, the newly glucosylated compds. are immediately deglycosylated, presumably by glucosidase II. The glucosyltransferase has been purified to apparent homogeneity from rat liver. The enzyme appears to have a mol. wt. of 150,000 and 270,000 under denaturing and native conditions, resp. The pure enzyme shows an almost abs. requirement for Ca²⁺ ions and for UDP-glucose as sugar donor. The same as crude prepns., the pure enzyme synthesized Glc1 Man7-9GlcNAc2-protein from Man7-9GlcNAc2-protein. Denatured glycoproteins are glucosylated much more efficiently than native ones by the apparently homogeneous glucosyltransferase. Availability of the pure enzyme will allow testing the possible involvement of transient glucosylation of glycoproteins in the folding of glycoproteins and/or in the mechanism by which cells dispose of malfolded glycoproteins in the endoplasmic reticulum.
 IT 133-89-1, UDP-glucose
 RL: BIOL (Biological study)
 (UDP-glucose-glycoprotein **glycosyltransferase** of liver requirement for, as sugar **donor**)
 RN 133-89-1 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 140 15

L40 ANSWER 15 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1991:243487 HCAPLUS
 DN 114:243487
 TI Method for determination of blood-group-specific glycosyltransferases
 IN Yazawa, Shin
 PA Sumitomo Seika Chemicals Co., Ltd., Japan; Otsuka Pharmaceutical Co., Ltd.
 SO Eur. Pat. Appl., 17 pp.
 CODEN: EPXXDW

DT Patent
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 387875	A2	19900919	EP 1990-104919	19900315
	EP 387875	A3	19921216		
	EP 387875	B1	19951011		
	R: CH, DE, FR, GB, IT, LI, NL, SE				
	CA 2012062	AA	19900915	CA 1990-2012062	19900313
	JP 03015761	A2	19910124	JP 1990-65059	19900315
PRAI	JP 1989-64457		19890315		

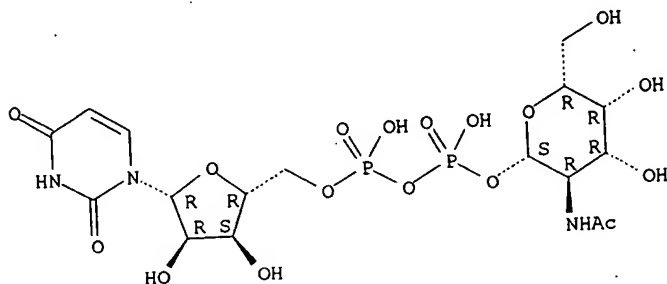
AB Glycosyltransferases in biol. fluids are detd. without the use of labeled substrates. The products are formed on an insol. or macromol. matrix and these are then detd. immunochem. or by qual. lectin binding. The assay is used in blood-grouping and in the diagnosis of certain cancers. Blood group substance H bonded to SYNORB H beads and UDP-acetylgalactosamine were incubated with serum samples at 37.degree. for 12-18. The beads were then washed and the formation of blood group substance A detd. using anti-A monoclonal antibody in an ELISA. The activities of the A-specific glycosyltransferase was comparable in A1 and A1B sera (.apprx.2300 pmol enzyme), significantly lower in A2 and A2B sera (1559 pmol) and greatly reduced in A3 sera (.apprx.450 pmol). Certain glycosyltransferases were found to be at high levels in plasma in patients suffering from certain types of cancer.

IT 2616-63-9 2956-16-3, UDP-galactose 3063-71-6
 15839-70-0, GDP-fucose

RL: BIOL (Biological study)
 (as sugar donor in detn. blood-group substance-specific glycosyltransferases)

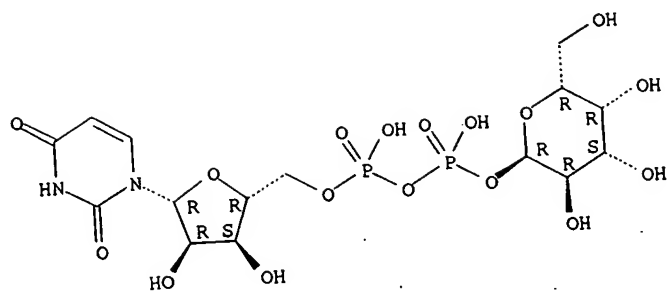
RN 2616-63-9 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-(2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



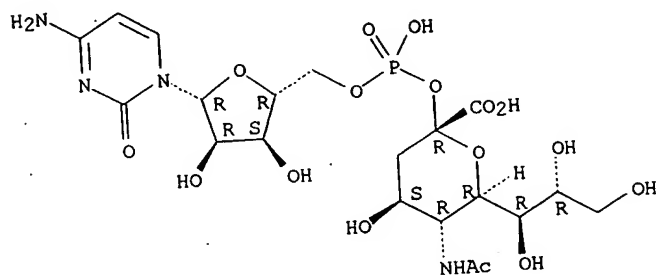
RN 2956-16-3 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



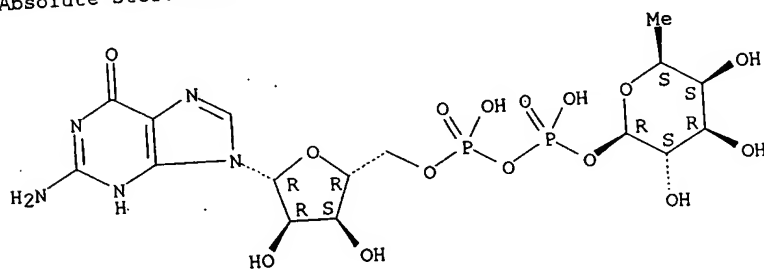
RN 3063-71-6 HCAPLUS
CN .beta.-Neuraminic acid, N-acetyl-, 2-(hydrogen 5'-cytidylate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



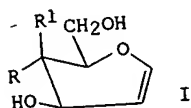
RN 15839-70-0 HCAPLUS
CN Guanosine 5'-(trihydrogen diphosphate), p'-(6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 140 16

L40 ANSWER 16 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1988:22160 HCAPLUS
 DN 108:22160
 TI Glycosylimidates. Part 28. Direct 3,6-di-O-protection of glucal and galactal
 AU Kinzy, Willy; Schmidt, Richard R.
 CS Fak. Chem., Univ. Konstanz, Konstanz, D-7750, Fed. Rep. Ger.
 SO Tetrahedron Lett. (1987), 28(18), 1981-4
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 OS CASREACT 108:22160
 GI

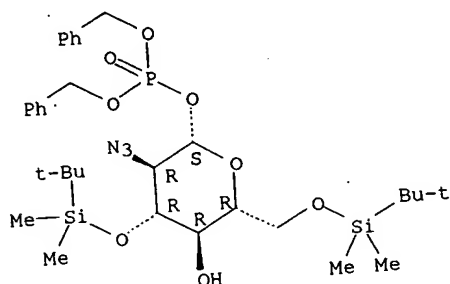


AB Me3CSiMe2Cl is a useful reagent for direct 3,6-di-O-protection of D-glucal (I; R = OH, R1 = H) and D-galactal (I; R = H, R1 = OH). The unprotected 4-OH group is still accessible to other protective groups, providing, after selective 3,6-O-desilylation, 4-O-protected derivs. 2-Azido group introduction does not even require 4-O-protection thus affording valuable synthesis by short and efficient routes.

IT **111830-67-2P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and **glycosyl donor** properties of)

RN 111830-67-2 HCAPLUS
 CN .beta.-D-Glucopyranose, 2-azido-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 140 17

L40 ANSWER 17 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 1984:67063 HCAPLUS

DN 100:67063

TI Endogenous capacity of rat testes interstitial cell nuclei to synthesize retinylphosphatemannose in vitro

AU Cope, Frederick O.; Knox, Kirvin L.; Hall, Roderick C., Jr.; Rousseau, Joseph E., Jr.

CS Dep. Nutr. Sci., Univ. Connecticut, Storrs, CT, 06268, USA

SO Nutr. Rep. Int. (1983), 28(6), 1313-21

CODEN: NURIBL; ISSN: 0029-6635

DT Journal

LA English

AB The in vitro Mn-dependent transfer of mannose [3458-28-4] in rat testes interstitial cell nuclei was stimulated by the addn. of retinyl phosphate [53859-19-1] and purified apo-cellular retinol-binding protein or apo-cellular retinoic acid-binding protein. The substitution of bovine serum albumin for either retinoid-binding protein reduced the transfer of mannose. Mannose transfer in the microsomal fraction of rat testes interstitial cells was similarly elevated in the presence of retinoid-binding proteins. Transfer of mannose was inhibited by 80% in nuclei and 84% in microsomes by addn. of EDTA. In the absence of retinyl phosphate, mannose transfer was inhibited by 75% and 77% for microsomes and nuclei, resp. Identification of the transferred [14C]mannose products by high performance liq. chromatog. indicated that in nuclei and microsome derived from retinol sufficient cells, 71% and 73% of the radioactivity, resp. eluted with authentic retinylphosphatemannose [55722-25-3]. This is in contrast to 61 and 62%, resp., for retinol-deficient cell fractions. The synthesis of retinylphosphatemannose (mannose transfer) in nuclei relative to microsomes was 1.05. This is in contrast to enzyme marker ratios which were <1.0 in these cell fractions. The above observations support the notion that formation of retinylphosphatemannose in nuclei resulted from an endogenous capacity to synthesize this **glycosyl** intermediate.

=> d bib abs hitstr 140 18

L40 ANSWER 18 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 1982:578722 HCAPLUS

DN 97:178722

TI Formation of flavonol 3-O-diglycosides and flavonol 3-O-triglycosides by enzyme extracts from anthers of Tulipa cv. Apeldoorn. Characterization and activity of three different O-glycosyltransferases during anther development

AU Kleinhollenhorst, G.; Behrens, H.; Pegels, G.; Srunk, N.; Wiermann, R.

CS Bot. Inst., Muenster, D-4400, Fed. Rep. Ger.

SO Z. Naturforsch., C: Biosci. (1982), 37C(7-8), 587-99

CODEN: ZNCBDA; ISSN: 0341-0382

DT Journal

LA English

AB Three glycosyltransferases were isolated and partially purified from anthers of Tulipa. The following designations are proposed: UDP-glucose: flavonol 3-O-glucosyltransferase (GT-I), UDP-rhamnose: flavonol 3-O-glucoside rhamnosyltransferase (GT-II), and UDP-xylose: flavonol 3-glycoside xylosyltransferase (GT-III). The 3 enzymes exhibited an identical pH optimum at 8.5-9.0. The estd. mol. wt. of GT-I and GT-II was .apprx.40,000, GT-III showed a mol. wt. of 30,000. GT-III required ions like NH₄⁺ or Ca²⁺, whereas these ions had almost no influence on GT-I and GT-II activity. The enzymes had a slight requirement for SH-reagents, particularly DTE. As opposed to GT-II, activities of GT-I and GT-III are significantly influenced by SH reagents and PCMB. Sucrose enhanced GT-III activity but only slightly GT-I activity; GT-II activity was not influenced. Flavonol aglycons can function as glycosyl acceptor for the GT-I, whereas flavonol 3-O-glycosides, luteolin, dihydroquercetin, naringenin, cyanidin, p-coumaric acid, and some other phenols were inactive as acceptor. The best acceptors were isorhamnetin and quercetin (K_m = 0.9 .times. 10⁻⁶M). GT-II did not accept aglycons as substrates. For this enzyme, flavonol 3-O-glucosides were the most attractive substrates. GT-III also did not have any affinity towards aglycons. This enzyme exhibited a high specificity for flavonol 3-O-glucosides as well as flavonol 3-O-galactosides. Both GT-II and GT-III, were able to glycosylate flavonol 3-O-diglycosides, forming triglycosides. UDP-glucose (K_m = 1.0 .times. 10⁻⁴M), UDP-rhamnose, and UDP-xylose where the best glycosyl donors for GT-I, GgT-II, or GT-III, resp. The glycosyl transfer catalyzed by the GT-I was a reversible reaction. In the whole anthers, highest specific activities of GT-I and GT-II were found during late stages of anther development. Similar results were obtained using the contents of anthers or the tapetum fraction. In contrast, high GT-III activity can be detected in young stages of anther development. The highest activities of the 3 glycosyltransferases were found in the tapetum fraction, whereas the pollen fraction exhibited only poor activities.

IT 133-89-1 1955-26-6 3616-06-6

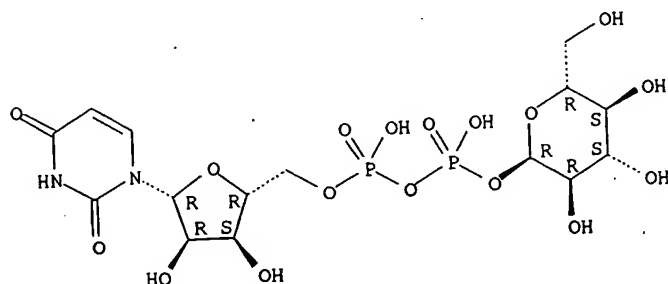
RL: BIOL (Biological study)

(as glycosyl donor for glucosyltransferase in tulip anthers)

RN 133-89-1 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), p'-.alpha.-D-glucopyranosyl ester (9CI) (CA INDEX NAME)

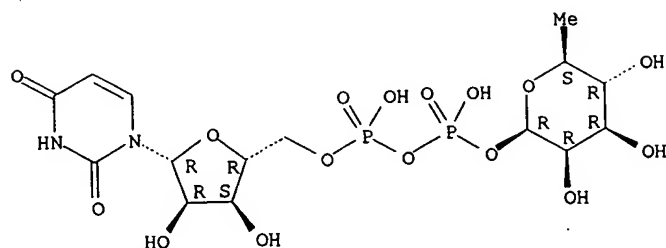
Absolute stereochemistry.



SEARCHED BY SUSAN HANLEY 305-4053

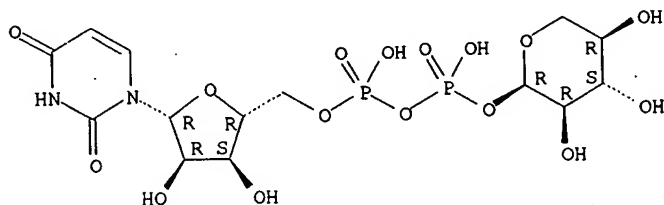
RN 1955-26-6 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-mannopyranosyl)
 ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 3616-06-6 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-xylopyranosyl ester
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 140 19

L40 ANSWER 19 OF 23 HCAPLUS COPYRIGHT 2000 ACS
AN 1981:699 HCAPLUS

DN 94:699

TI Inhibition of lipid-linked mannose and mannoprotein synthesis in yeast by diumycin in vitro

AU Babczinski, Peter

CS Fak. Biol. Vorklin. Med., Univ. Regensburg, Regensburg, Fed. Rep. Ger.

SO Eur. J. Biochem. (1980), 112(1), 53-8

CODEN: EJBCAI; ISSN: 0014-2956

DT Journal

LA English

AB

Diumycin [11141-18-7], a **phosphoglycolipid** antibiotic, inhibits different mannosyl **transfer** reactions in yeast with membrane preps., the drug effectively inhibited the formation of dolichyl phosphate mannose (DolP-Man) [55598-56-6]; 50% inhibition was obsd. at .apprx.10 .mu.g/mL. To a lesser extent, mannosyl transfer from DolP-Man to protein also decreased in presence of diumycin. Both mannosyl transfer to protein-serine/threonine acceptor sites as well as into positions within the asparagine-linked polymannose part of the yeast mannoprotein are inhibited to .apprx.60% under conditions where DolP-Man formation is blocked. DolP-Man synthesis as well as mannosyl transfer from DolP-Man to protein are also inhibited by diumycin using solubilized enzymes and exogenous acceptor substrates. **Glycosyltransfer** reactions from GDP-mannose either to protein-serine/threonine-linked mannose (formation of short manno-oligosaccharides) or to dolichyl-diphosphate-linked chitobiose (formation of lipid-linked trisaccharide) are not inhibited by diumycin under conditions where DolP-Man synthesis is blocked by the antibiotic. The inhibitory action of diumycin on DolP-Man formation does not seem to be competitive with regard to dolichyl phosphate, since it cannot be overcome by higher concns. of dolichyl phosphate.

=> d bib abs hitstr 140 20

L40 ANSWER 20 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 1980:89422 HCAPLUS

DN 92:89422

TI Enzymic N-glycosylation and O-glycosylation of synthetic peptide acceptors by dolichol-linked sugar derivatives in yeast

AU Bause, Ernst; Lehle, Ludwig

CS Inst. Biochem., Univ. Koeln, Cologne, Fed. Rep. Ger.

SO Eur. J. Biochem. (1979), 101(2), 531-40

CODEN: EJBCAI; ISSN: 0014-2956

DT Journal

LA English

AB Using synthetic peptides, the structural requirements for enzymic N- and O-glycosylation via dolichol-linked sugar derivs. in membranes from *Saccharomyces cerevisiae* were investigated. Dolichyl diphosphate-chitobiose was used as a glycosyl donor for the formation of the N-glycosidic linkage to asparagine. This reaction simulated glycosyl transfer in vitro from lipid-linked oligosaccharides. The structural requirement of the carbohydrate acceptor for the transfer of chitobiose was the tripeptide sequence, Asn-X-Ser/Thr. Moreover, the rate of glycosylation was affected by the chain length of peptides. Dinitrophenylation and dansylation of peptides showed that other criteria are also of importance for glycosyl transfer in vitro. In contrast to the asparagine sequon, a marker sequence for the formation of the O-glycosidic linkage via dolichyl phosphate-mannose could not be deduced. However, glycosyl transfer required at least a min. chain length of a tripeptide. With increasing chain length, acceptor properties became significantly better; accessibility rather than recognition of a specific sequence may be the key for O-glycosylation. The mannose unit was transferred from dolichyl phosphate-.beta.-D-mannose with inversion of its configuration to form .alpha.-D-mannosyl peptide. In addn., newly formed mannosyl peptide could be used as an acceptor for chain elongation via GDP-mannose giving rise to mannosyl peptide, a reaction that occurs in the glycosylation process of endogenous membrane-bound acceptor. Thus, synthetic peptides may be useful tools, not only to study structural requirements for glycosylation, but also to study dolichol-mediated reactions independent of endogenous substrate.

IT 55598-56-6 59694-82-5

RL: BIOL (Biological study)
(as **glycosyl donor**, in peptide
glycosylation by yeast membranes)

RN 55598-56-6 HCAPLUS

CN .beta.-D-Mannopyranose, 1-ester with dolichol dihydrogen phosphate (9CI)
(CA INDEX NAME)

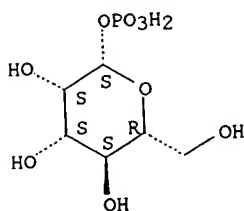
CM 1

CRN 40591-51-3

CMF C6 H13 O9 P

CDES 5:B-D-MANNO

Absolute stereochemistry.



CM 2

SEARCHED BY SUSAN HANLEY 305-4053

Page 44

CRN 11029-02-0
CMF Unspecified
CCI MAN

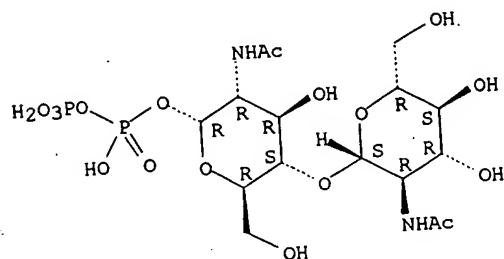
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RN 59694-82-5 HCAPLUS
CN .alpha.-D-Glucopyranose, 2-(acetylamino)-4-O-[2-(acetylamino)-2-deoxy-
.beta.-D-glucopyranosyl]-2-deoxy-, 1-ester with dolichol (trihydrogen
diphosphate) (9CI) (CA INDEX NAME)

CM 1

CRN 200267-49-8
CMF C16 H30 N2 O17 P2

Absolute stereochemistry.



CM 2

CRN 11029-02-0
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

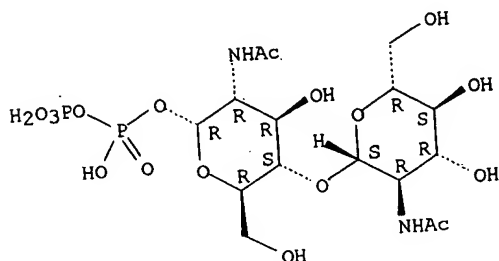
=> d bib abs hitstr 140 21

L40 ANSWER 21 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1979:606255 HCAPLUS
 DN 91:206255
 TI Studies on the acceptor specificity of asparagine-N-glycosyltransferase from rat liver
 AU Bause, Ernst
 CS Inst. Biochem., Univ. Koeln, Cologne, D-5000/1, Fed. Rep. Ger.
 SO FEBS Lett. (1979), 103(2), 296-9
 CODEN: FEBLAL; ISSN: 0014-5793
 DT Journal
 LA English
 AB The transfer of 14C-labeled di-N-acetylchitobiose (I) from dolichyl pyrophosphate-I-14C to a series of synthesized hexapeptides by a liver microsomal N-glycosyltransferase (II) was investigated. It was concluded that the Asn-X-Thr/Ser sequence is a necessary and sufficient condition for N-glycosylation in vitro, provided an added amino acid is bound to the N-terminus; replacement of asparagine or the hydroxyamino acid causes a complete loss of activity. Peptides with an Asn-Pro-Thr/Ser sequence cannot be glycosylated. The hexapeptide, Tyr-Asn-Leu-Thr-Ser-Val, together with dolichyl pyrophosphate-I-14C as glycosyl donor constitutes an excellent system for the examn. and characterization of II in rat liver.
 IT 59694-82-5
 RL: BIOL (Biological study)
 (as **glycosyl donor** for asparagine N-glycosyltransferase of liver)
 RN 59694-82-5 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2-(acetylamino)-4-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-2-deoxy-, 1-ester with dolichol (trihydrogen diphosphate) (9CI) (CA INDEX NAME)

CM 1

CRN 200267-49-8
 CMF C16 H30 N2 O17 P2

Absolute stereochemistry.



CM 2

CRN 11029-02-0
 CMF Unspecified
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr 140 22

L40 ANSWER 22 OF 23 HCAPLUS COPYRIGHT 2000 ACS
AN 1978:502045 HCAPLUSDN 89:102045
TI Glycosyl transfer from nucleotide sugars to C85- and C55-polyprenyl and retinyl phosphates by microsomal subfractions and Golgi membranes of rat liverAU Bergman, Anders; Mankowski, Todeusz; Chojnacki, Todeusz; De Luca, Luigi
M.; Peterson, Elisabeth; Dallner, GustavCS Dep. Biochem., Univ. Stockholm, Stockholm, Swed.
SO Biochem. J. (1978), 172(1), 123-7

CODEN: BIJOAK; ISSN: 0006-2936

DT Journal

LA English

AB

C85- and C55-polyprenyl phosphates with satd. .alpha.-isoprene units, and retinyl phosphate, accepted mannose from GDP-mannose in the presence of rat liver microsomal subfractions and Golgi membranes, but were much less effective acceptors for other sugars. The amt. of endogenous acceptor for N-acetylglucosamine was high in rough- and smooth-microsomal fractions compared with Golgi membranes. The most effective lipid acceptor in the intracellular membranes was that for glucose, but the polyprenyl phosphates added were less effective acceptors for this sugar than for mannose and glucosamine. Thus, the amts. and types of polyprenyl phosphates present in cytoplasmic membranes may vary with the type of biosynthetic path present.

IT 133-89-1 528-04-1 2956-16-3 3063-71-6
3123-67-9

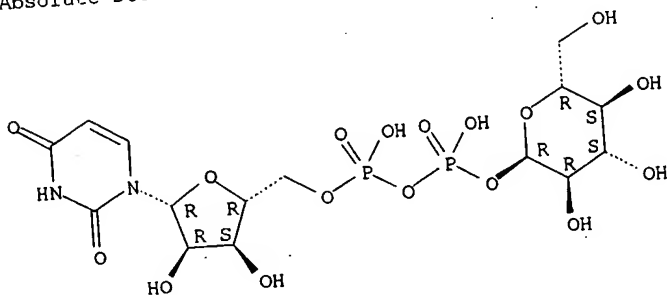
RL: BIOL (Biological study)

(glycosyl transfer from, to polyprenol phosphates by membrane fractions of liver)

RN 133-89-1 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester (9CI) (CA INDEX NAME)

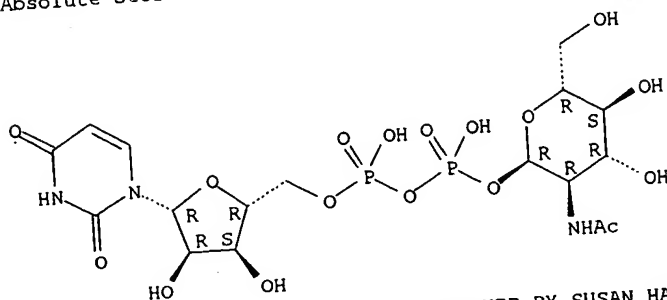
Absolute stereochemistry.



RN 528-04-1 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-[2-(acetylamino)-2-deoxy-.alpha.-D-glucopyranosyl] ester (9CI) (CA INDEX NAME)

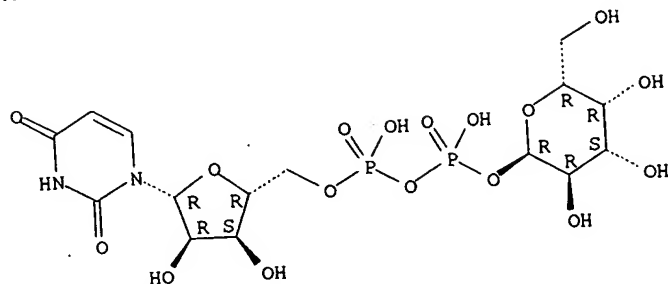
Absolute stereochemistry.



SEARCHED BY SUSAN HANLEY 305-4053

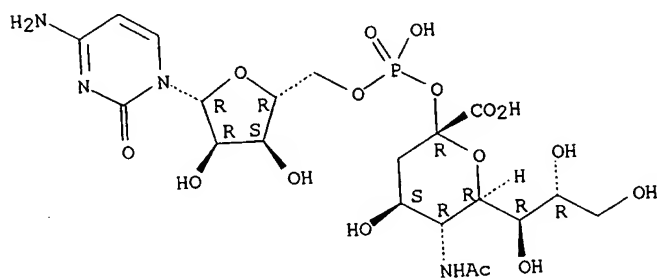
RN 2956-16-3 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



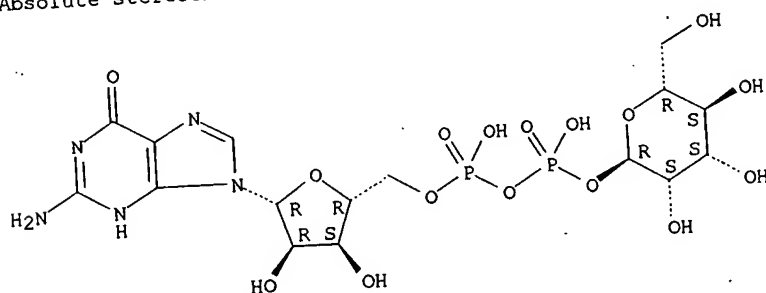
RN 3063-71-6 HCAPLUS
 CN .beta.-Neuraminic acid, N-acetyl-, 2-(hydrogen 5'-cytidylate) (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.



RN 3123-67-9 HCAPLUS
 CN Guanosine 5'-(trihydrogen diphosphate), P'-.alpha.-D-mannopyranosyl ester
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 140 23

L40 ANSWER 23 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1968:433141 HCAPLUS
 DN 69:33141
 TI Incorporation of 2-deoxy-D-glucose into glycogen
 AU Biely, P.; Farkas, V.; Bauer, S.
 CS Slovak Acad. Sci., Bratislava, Czech.
 SO Biochim. Biophys. Acta (1968), 158(3), 487-8
 CODEN: BBACAQ

DT Journal
 LA English

AB The incorporation of 2-glucose into glycogen was investigated in an isolated enzyme system (yeast glycogen synthetase, EC 2.4.1.11) where rabbit liver glycogen and UDP-deoxy-D-glucose were used as primer and glycosyl donor, resp. Treatment of the enzymic products with barley .beta.-amylase yielded maltose and 2,2'-dideoxymaltose. Treatment of 2,2'-dideoxymaltose with acid hydrolysis and maltase yielded only 2-deoxy-D-glucose. A certain nonspecificity of .beta.-amylase and maltase with regard to the presence or absence of the OH group at C-2 of the glucose unit is indicated. The incorporation of 2-deoxy-D-glucose into glycogen apparently proceeds only to some outer chains of the primer mol., and more than one 2-deoxy-glucosyl unit is linked to the same nonreducing terminal of the primer mol. The incorporation of 2-deoxy-D-glucose into glycogen seems to proceed analogously to the glucosyl transfer from UDP-D-glucose into glycogen.

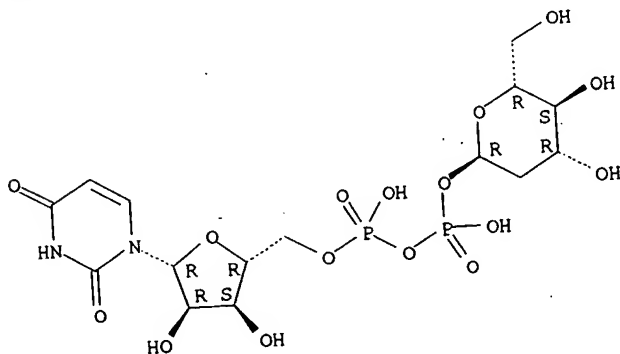
IT 18521-38-5

RL: BIOL (Biological study)
 (as glycogen formation **glycosyl donor**)

RN 18521-38-5 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-(2-deoxy-.alpha.-D-arabino-hexopyranosyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CASREACT
glycosylation

LEE 09/413,381

=> D BIB ABS FCRDREF L32 1

L32 ANSWER 1 OF 8 CASREACT COPYRIGHT 2000 ACS
AN 132:93556 CASREACT
TI Solid-Phase Oligosaccharide Synthesis: Preparation of Complex Structures
Using a Novel Linker and Different Glycosylating Agents
AU Andrade, Rodrigo B.; Plante, Obadiah J.; Melean, Luis G.; Seeberger, Peter
H.
CS Department of Chemistry, Massachusetts Institute of Technology, Cambridge,
MA, 02139, USA
SO Org. Lett. (1999), 1(11), 1811-1814
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
AB A .beta.-(1.fwdarw.4)-linked trisaccharide was prepd. in 53% yield on a
polymer support using glycosyl phosphates and released by cross-metathesis
of a novel linker to reveal the anomeric n-pentenyl glycoside.
Heptasaccharide was prepd. in 9% yield in 14 steps.

RX(4) OF 41 - REACTION DIAGRAM NOT AVAILABLE
COPYRIGHT 2000 ACS
RE.CNT 50

OF 8 CASREACT

RE
(1) Adinolfi, M; Tetrahedron Lett 1996, V37, P5007 CAPLUS
(2) Adinolfi, M; Tetrahedron Lett 1998, V39, P1953 CAPLUS
(6) Caruthers, M; Science 1985, V230, P281 CAPLUS
(7) Danishefsky, S; Science 1993, V260, P1307 CAPLUS
(8) Douglas, S; J Am Chem Soc 1995, V117, P2116 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D BIB ABS FCRDREF L32 2

L32 ANSWER 2 OF 8 CASREACT COPYRIGHT 2000 ACS
AN 127:95505 CASREACT
TI New efficient synthesis of a biosynthetic precursor of lipid A
AU Oikawa, Masato; Wada, Akira; Yoshizaki, Hiroaki; Fukase, Koichi; Kusumoto, Shoichi
CS Dep. Chemistry, Graduate School Science, Osaka Univ., Toyonaka, 560, Japan.
SO Bull. Chem. Soc. Jpn. (1997), 70(6), 1435-1440
CODEN: BCSJA8; ISSN: 0009-2673
PB Chemical Society of Japan
DT Journal
LA English
AB A biosynthetic precursor of lipid A has been synthesized by an improved efficient method. Two appropriately modified acyl-substituted glucosamine units were synthesized from D-glucosamine using (R)-3-(benzyloxy)tetradecanoic acid and then coupled by the **Lewis acid**-promoted glycosidation via the corresponding trichloroacetimidate. Glycosyl phosphorylation and hydrogenolytic deprotection, followed by purifn. by liq.-liq. partition chromatog., afforded the target compd. in 2.9% total yield through 13 steps from N-Troc-D-glucosamine.

RX(1) OF 1 - REACTION DIAGRAM NOT AVAILABLE
COPYRIGHT 2000 ACS

OF 8 CASREACT

=> D BIB ABS FCRDREF L32 3

L32 ANSWER 3 OF 8 CASREACT COPYRIGHT 2000 ACS

AN 125:34009 CASREACT

TI Synthesis of 2'-O-[(4"-O-sorboyl)-.alpha.-L-fucopyranosyl]inosine: a shimofuridin analog

AU Duynstee, Howard I.; Wijsman, Eric R.; van der Marel, Gijs A.; van Boom, Jacques H.

CS Leiden Inst. of Chemistry, Gorlaeus Laboratories, Leiden, 2300 RA, Neth.

SO Synlett (1996), (4), 313-314

CODEN: SYNLES; ISSN: 0936-5214

DT Journal

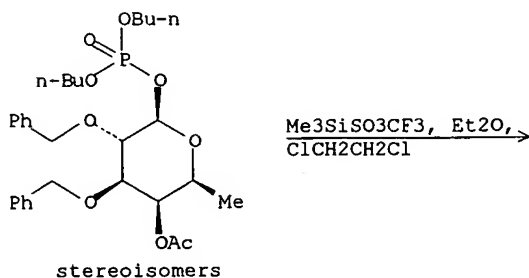
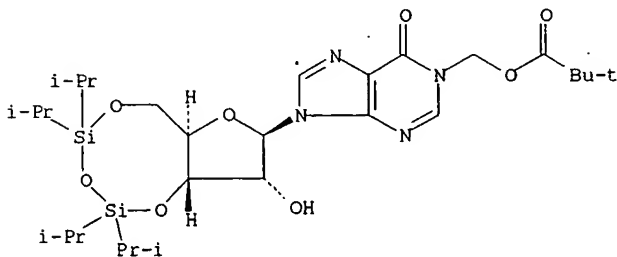
LA English

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

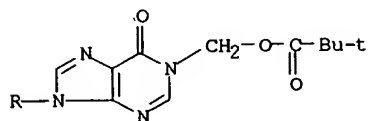
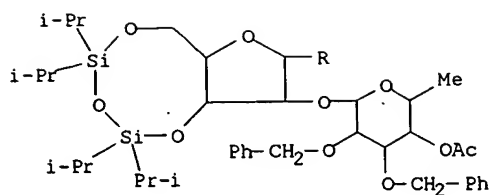
AB Trimethylsilyl **triflate** mediated glycosylation of 3',5'-O-(tetraisopropylidisiloxane-1,3-diyl)-1-N-pivaloyloxymethylinosine (I) with di-Bu 4-O-acetyl-2,3-di-O-benzyl-.alpha./.beta.-L-fucopyranosyl phosphate (II) gave nucleoside III [R1 = CH2Ph, R2 = CH2C(:O)CMe3, R3 = Ac] which was transformed in three steps into acetonide III (R1 = CMe2, R2 = R3 = H). Acylation of III (R1 = CMe2, R2 = R3 = H) with sorbic acid followed by deprotection gave the title compd.

RX(4) OF 24



Me3SiSO3CF3, Et2O,
ClCH2CH2Cl

RX(4) OF 24



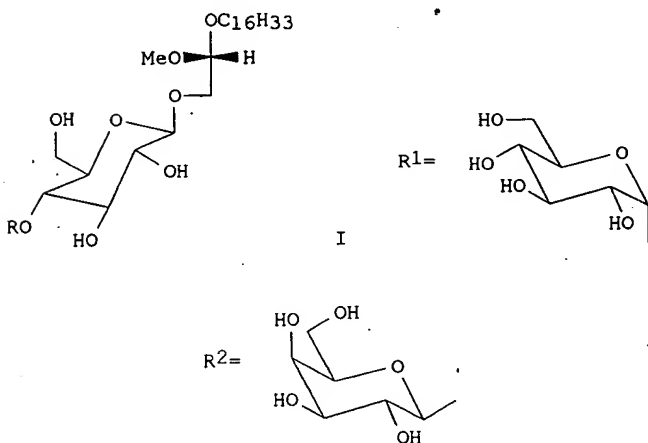
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REF: Synlett, (4), 313-314; 1996
NOTE: stereoselective key step

OF 8 CASREACT COPYRIGHT 2000 ACS

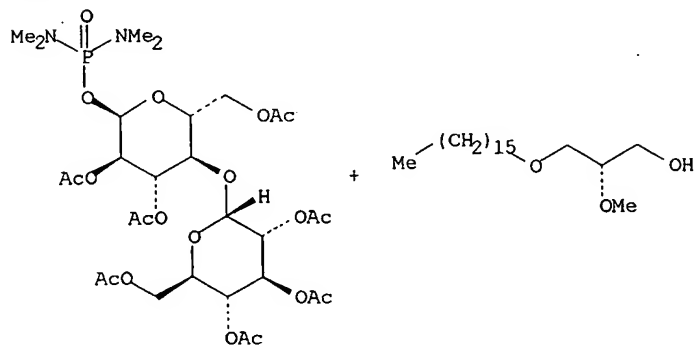
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L32 ANSWER 4 OF 8 CASREACT COPYRIGHT 2000 ACS
 AN 122:56346 CASREACT
 TI A facile stereoselective synthesis of ether-linked .beta.-D-maltosyl- and .beta.-D-lactosyl-glycerolipids via peracetylated disaccharide .alpha.-phosphoramidates
 AU Erukulla, Ravi Kumar; Bittman, Robert
 CS Dep. Chem. Biochem., City Univ. New York, Flushing, NY, 11367-1597, USA
 SO Synth. Commun. (1994), 24(19), 2765-70
 CODEN: SYNCAV; ISSN: 0039-7911
 DT Journal
 LA English
 GI



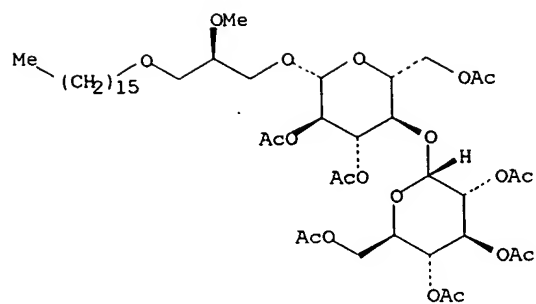
AB The reaction of 1-O-hexadecyl-2-O-methyl-sn-glycerol with 2,3,6,2',3',4',6'-hepta-O-acetyl-.alpha.-lactosylphosphoramidate or .alpha.-maltosylphosphoramidate in the presence of trimethylsilyl triflate and mol. sieves afforded 1-O-hexadecyl-2-O-methyl-3-O-(2,3,6,2',3',4',6'-hepta-O-acetyl-.beta.-lactosyl)-sn-glycerolipid or .beta.-maltosyl-sn-glycerolipid stereoselectively in moderate yields after column chromatog. Alk. hydrolysis of the O-peracetyl glycerolipids gave the desired .beta.-glycolipids I (R = R1, R2).

RX(3) OF 6



Me3SiOSO3CF3, CH2C12

RX(3) OF 6



488

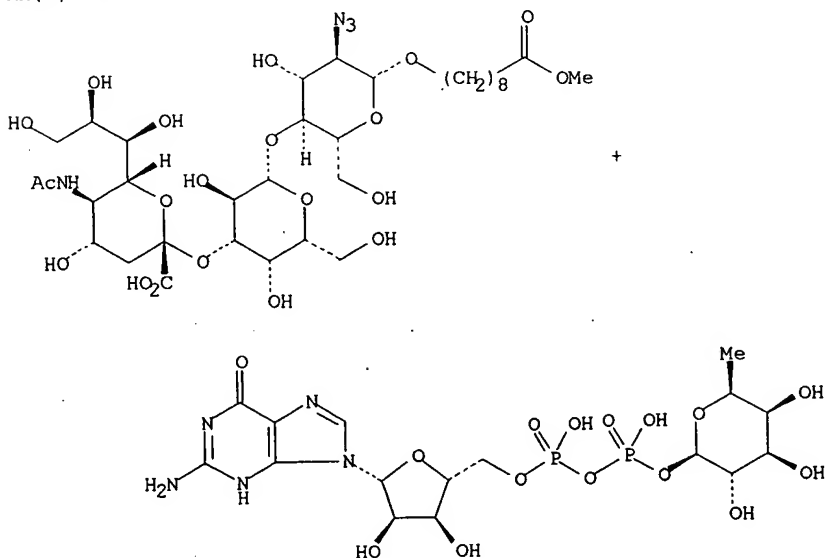
REF: Synth. Commun., 24(19), 2765-70; 1994
NOTE: MOL. SIEVES ADDED

OF 8 CASREACT COPYRIGHT 2000 ACS

=> D BIB ABS FCRDREF L32 5

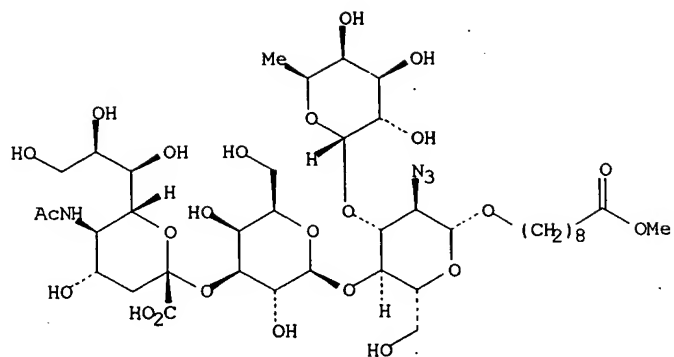
L32 ANSWER 5 OF 8 CASREACT COPYRIGHT 2000 ACS
 AN 120:299159 CASREACT
 TI Use of human-milk fucosyltransferase in the chemoenzymic synthesis of analogs of the sialyl Lewisx and sialyl Lewis_a tetrasaccharides modified at the C-2 position of the reducing unit
 AU Nikrad, Pandurang V.; Kashem, Mohammed A.; Wlasichuk, Kenneth B.; Alton, Gordon; Venot, Andre P.
 CS Carbohydr. Res. Program, Alberta Res. Counc., Edmonton, AB, T6H 5X2, Can.
 SO Carbohydr. Res. (1993), 250(1), 145-60
 CODEN: CRBRAT; ISSN: 0008-6215
 DT Journal
 LA English
 AB Two series of trisaccharides, having the formulas α -Neu5Ac-(2.fwdarw.3)- β -D-Gal-(1.fwdarw.4)- β -D-GlcZ-OR and α -Neu5Ac-(2.fwdarw.3)- β -D-Gal-(1.fwdarw.3)- β -D-GlcZ-OR [R = (CH₂)₈CO₂CH₃] resp., in which the 2-deoxy substituent Z is azido, propionamido, or acetamido, were prepd. by chem. synthesis. Both types of modified trisaccharides are acceptors for a fucosyltransferase prepn. obtained from human milk. Preparative fucosylations using this enzyme provided analogs of the sialyl Lewis_x and sialyl Lewis_a tetrasaccharide structures, which have been proposed to be ligands for cell-adhesion mols. These syntheses further demonstrate the utility of glycosyltransferases in the prepn. of oligosaccharide analogs.

RX(3) OF 6



RX(3) OF 6

C:37277-69-3,
R:56-65-5, NaN₃,
Water



REF: Carbohydr. Res., 250(1), 145-60; 1993
NOTE: enzymic, buffer soln., key step

OF 8 CASREACT COPYRIGHT 2000 ACS

=> D BIB ABS FCRDREF L32 6

L32 ANSWER 6 OF 8 CASREACT COPYRIGHT 2000 ACS

AN 119:117697 CASREACT

TI A striking example of the interfacing of glycal chemistry with enzymatically mediated sialylation: a concise synthesis of ganglioside GM3

AU Liu, Kevin K. C.; Danishefsky, Samuel J.

CS Dep. Chem., Yale Univ., New Haven, CT, 06511, USA

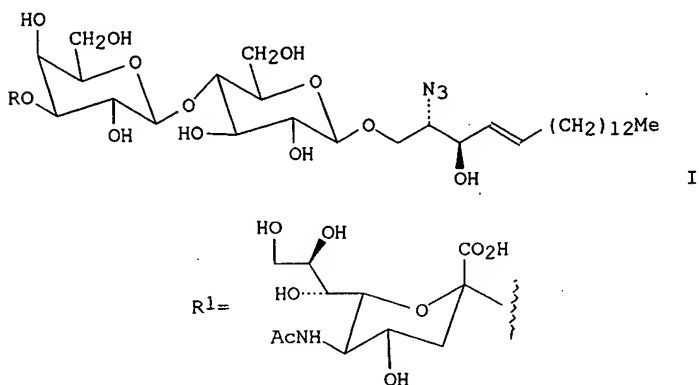
SO J. Am. Chem. Soc. (1993), 115(11), 4933-4

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

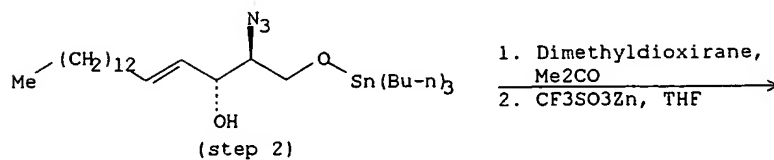
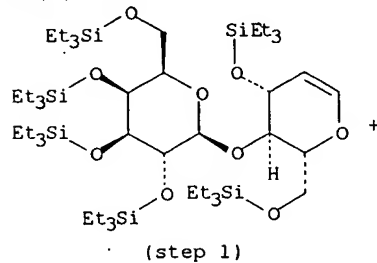
LA English

GI



AB A highly concise synthesis of ganglioside GM3 (I; R = R1) exploits a new method for using 1,2-anhydro sugars as precursors to glycosides of ceramide. Introduction of the sialic acid residue at C3' of the galactose of lactoside I (R = H) is achieved by enzymically mediated sialyl transfer via CMP-5NuAc.

RX(2) OF 10



OF 8 CASREACT COPYRIGHT 2000 ACS

LEE 09/413,381

=> D BIB ABS FCRDREF L32 7

L32 ANSWER 7 OF 8 CASREACT COPYRIGHT 2000 ACS

AN 112:99007 CASREACT

TI A rapid and efficient synthesis of 1,2-trans-.beta.-linked glycosides via benzyl- or benzoyl-protected glycopyranosyl phosphates

AU Hashimoto, Shunichi; Honda, Takeshi; Ikegami, Shiro

CS Fac. Pharm. Sci., Teikyo Univ., Sagamiko, 199-01, Japan

SO J. Chem. Soc., Chem. Commun. (1989), (11), 685-7

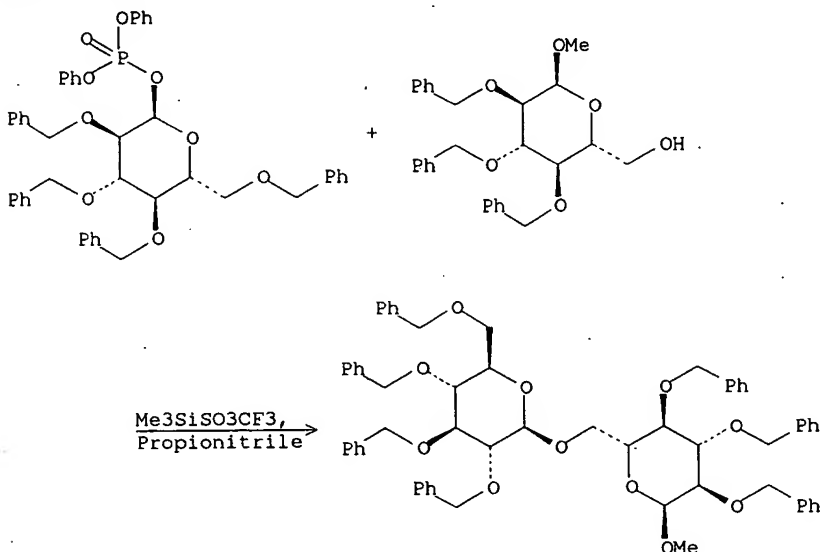
CODEN: JCCCAT; ISSN: 0022-4936

DT Journal

LA English

AB A highly stereocontrolled construction of 1,2-trans-.beta.-glycosidic linkage with or without neighboring-group participation was achieved using benzyl- or benzoyl-protected glycopyranosyl phosphates as glycosyl donors in the presence of trimethylsilyl triflate.

RX(1) OF 19



REF: J. Chem. Soc., Chem. Commun., (11), 685-7; 1989

OF 8 CASREACT COPYRIGHT 2000 ACS

=> D BIB ABS FCRDREF L32 8

L32 ANSWER 8 OF 8 CASREACT COPYRIGHT 2000 ACS

AN 110:57970 CASREACT

TI Synthesis of the tetrasaccharide lipid intermediate P1-dolichyl
 P2-[O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-(2-acetamido-2-deoxy-.beta.-D-glucopyranosyl)-(1.fwdarw.4)-2-acetamido-2-deoxy-.alpha.-D-glucopyranosyl] diphosphate

AU Warren, Christopher D.; Nakabayashi, Satoru; Jeanloz, Roger W.

CS Dep. Biol. Chem., Harvard Med. Sch., Boston, MA, 02114, USA

SO Carbohydr. Res. (1987), 169, 221-33

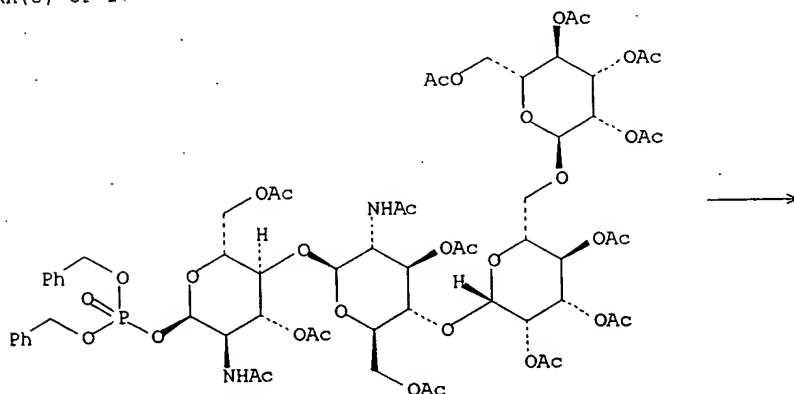
CODEN: CRBRAT; ISSN: 0008-6215

DT Journal

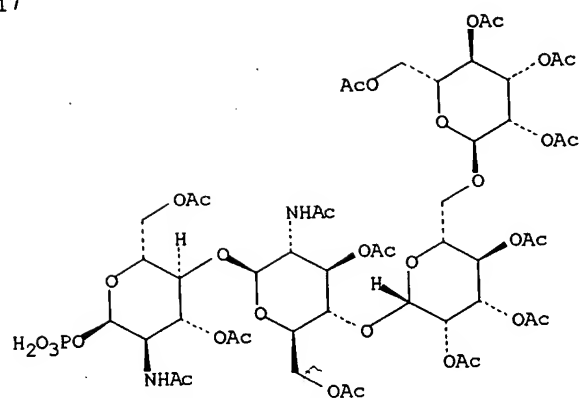
LA English

AB O-.alpha.-D-Mannopyranosyl-(1.fwdarw.6)-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-(2-acetamido-2-deoxy-.beta.-D-glucopyranosyl)-(1.fwdarw.4)-2-acetamido-2-deoxy-D-glucopyranose was isolated from bovine or ovine mannosidosis urine. After peracetylation, treatment with Me3SiO3SCF3 gave a high yield of a peracetylated oxazoline, which was phosphorylated with dibenzyl phosphate to give a dibenzyl glycosyl phosphate that was converted into a peracetyl tetrasaccharide phosphate by catalytic hydrogenolysis. A coupling reaction with P1-dolichyl P2-diphenyl diphosphate, prepd. in two stages from pig-liver dolichol, yielded a peracetyl diphosphoric diester, which on O-deacetylation gave the title compd. (I). I was active as an acceptor of D-mannose residues from GDP-D-mannose in the presence of calf pancreas microsomes.

RX(5) OF 17



RX(5) OF 17



REF: Carbohydr. Res., 169,, 221-33; 1987

OF 8 CASREACT COPYRIGHT 2000 ACS

LEE 09/413,381

=> D BIB ABS FCRDREF L32 9

8 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):END

SEARCHED BY SUSAN HANLEY 305-4053

Page 14

=> D HIS

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FILE 'REGISTRY' ENTERED AT 10:11:46 ON 27 JUL 2000
ACT LEE381S/A

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L2      SCR 1838 AND 2016
L3      ( 5213) SEA FILE=REGISTRY SSS FUL L1 AND L2
L4      STR
L5      4236 SEA FILE=REGISTRY SUB=L3 SSS FUL L4
L6      1178 S L5 AND 1/NR
L7      1595293 S NC5/ES OR OC5/ES OR SC5/ES
L8      4236 S L7 AND L5
L9      1296516 S 46.157.1/RID OR 46.156.1/RID OR 46.150.1/RID
L10     4214 S L5 AND L9
L11     81 S L10 AND 46.150.1/RID
L12     802 S L10 AND 46.150.18/RID

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not relevant to
CAS REACT SEARCH Below

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L13 178 S L5

FILE 'REGISTRY' ENTERED AT 10:35:54 ON 27 JUL 2000
ACT LEE381P2/A

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L17     E DIOXIRANE/CN
L17     1 S E3
L18     E DIOXIRANE, DIMETHYL/CN
L18     5 S E4-8
L19     E Silyl TRIFLATE/CN
L19     1 S E3
L19     E Silyl SULFONATE/CN
L19     E TRIFLATE/CN

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L23     STR L4
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L25     3468 S LEWIS ACID
L26     0 S L24 AND L25
L27     137 S L23 FUL
L28     2 S L27 AND L25
L29     2 S L18 AND L27
L30     3524 S ?TRIFLATE?
L31     4 S L30 AND L27
L32     8 S L31 OR L29 OR L28

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addition of P to , 9 cites

glycosylation, 8 cites

=> D QUE L32

L18

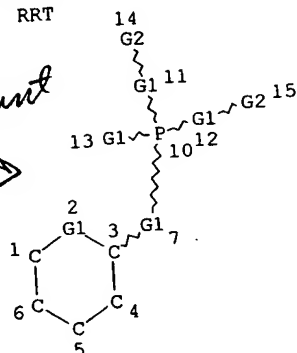
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L23

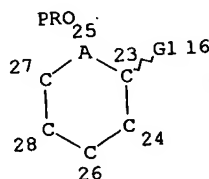
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RRT

reactant



product



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 MLEVEL IS CLASS AT 25
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS UNLIMITED AT 25

GRAPH ATTRIBUTES:
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 NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

****MAPPINGS****

NOD SYM	ROL	NOD SYM	ROL
3 C	RRT	23 C	PRO
6 C	RRT	28 C	PRO
23 C	PRO	3 C	RRT
28 C	PRO	6 C	RRT

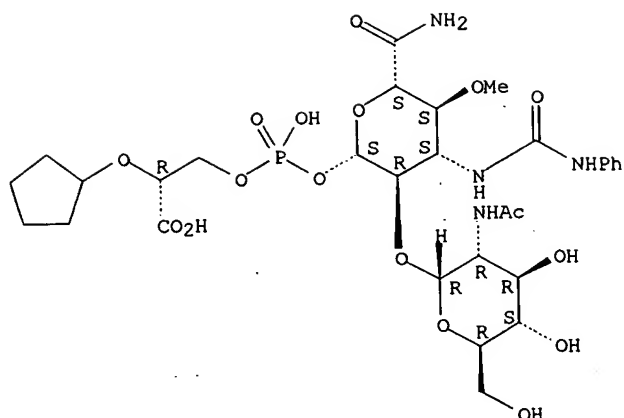
L25 3468 SEA FILE=CASREACT ABB=ON PLU=ON LEWIS ACID
 L27 137 SEA FILE=CASREACT SSS FUL L23 (799 REACTIONS)
 L28 2 SEA FILE=CASREACT ABB=ON PLU=ON L27 AND L25
 L29 2 SEA FILE=CASREACT ABB=ON PLU=ON L18 AND L27
 L30 3524 SEA FILE=CASREACT ABB=ON PLU=ON ?TRIFLATE?
 L31 4 SEA FILE=CASREACT ABB=ON PLU=ON L30 AND L27
 L32 8 SEA FILE=CASREACT ABB=ON PLU=ON L31 OR L29 OR L28

=> d bib abs hitstr 153 1

ANSWER 11 OF 23 HCAPLUS COPYRIGHT 2000 ACS

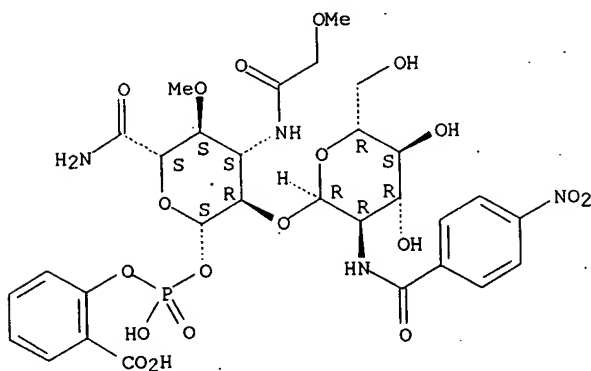
AN 1999:355782 HCAPLUS
 DN 131:5477
 TI A combinatorial library of moenomycin analogs as antibacterial agents
 IN Allanson, Nigel Mark; Chan, Tin Yau; Hatzenbuehler, Nicole T.; Jain, Rakesh K.; Kakarla, Ramesh; Liang, Rui; Liu, Dashan; Silva, Domingos; Sofia, Michael
 PA Intercardia, Inc., USA
 SO PCT Int. Appl., 160 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9926956	A1	19990603	WO 1998-US24406	19981117
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9915879	A1	19990615	AU 1999-15879	19981117
US 1997-975229		19971121		
WO 1998-US24406		19981117		
OS MARPAT 131:5477 AB A combinatorial chem. library of compds. structurally related to the moenomycin class of antibiotics has formula DAPR wherein D is a donor mono- or disaccharide, A is an acceptor monosaccharide, and P-R is a lipophosphoglycerate mimetic group. Members of the library have a glycosidic linkage between the anomeric carbon of D and the C2 carbon of A, and the D-A moiety is in turn covalently linked through the anomeric carbon of A to the P-R group. Members of the library exhibit their greatest structural diversity in terms of substitutions occurring at the C3 position of the A residue, substitutions at the C2 position of the D residue, and different P-R groups used in assembling the compds. Members of the library are preferably synthesized by solid phase techniques involving stepwise coupling of the resp. units to a support, functionalizing the A and/or D saccharides either before or after immobilizing them on the support, and cleaving the assembled compds. from the support. Preferred functionalities attached to the sugar residues are amides, carbamates, ureas, sulfonamides, substituted amines, esters, carbonates, and sulfates. Exemplary P-R groups are derivs. of homoserine, glyceric acid, salicylates and mandelic acid. Thus, Ph 3-azido-3-deoxy-4-O-benzoyl-1-thio-.beta.-D-glucopyranosiduronic acid was prepd. Members of the library can be screened for anti-microbial activity by contacting them with a culture of microbes and monitoring the growth rate of the microbes. IT 225243-08-3P 225243-09-4P RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (combinatorial library of moenomycin analogs as antibacterial agents) RN 225243-08-3 HCAPLUS CN .beta.-D-Glucopyranuronamide, 2-O-[2-(acetylamino)-2-deoxy-.alpha.-D-glucopyranosyl]-3-deoxy-4-O-methyl-3-[[[(phenylamino)carbonyl]amino]-, 1-[(2R)-2-carboxy-2-(cyclopentylloxy)ethyl hydrogen phosphate] (9CI) (CA INDEX NAME) Absolute stereochemistry.				



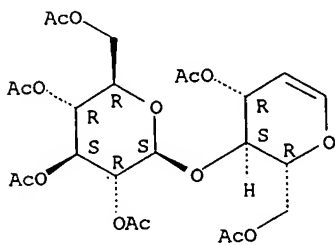
RN 225243-09-4 HCAPLUS
 CN .beta.-D-Glucopyranuronamide, 3-deoxy-2-O-[2-deoxy-2-[(4-nitrobenzoyl)amino]-.alpha.-D-glucopyranosyl]-3-[(methoxyacetyl)amino]-4-O-methyl-, 1-(2-carboxyphenyl hydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 67314-36-7
 RL: RCT (Reactant)
 (combinatorial library of moenomycin analogs as antibacterial agents)
 RN 67314-36-7 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-4-O-(2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranosyl)-, diacetate (9CI) (CA INDEX NAME)

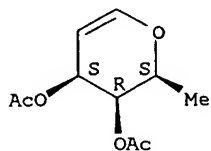
Absolute stereochemistry.



IT 54621-94-2P 75829-69-5P 136680-04-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (combinatorial library of moenomycin analogs as antibacterial agents)
 SEARCHED BY SUSAN HANLEY 305-4053

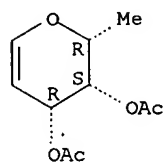
RN 54621-94-2 HCAPLUS
CN L-arabino-Hex-5-enitol, 2,6-anhydro-1,5-dideoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



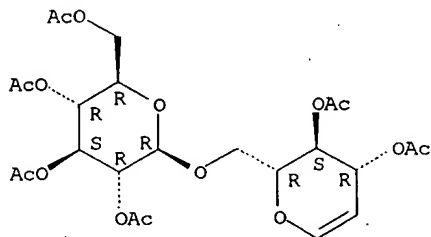
RN 75829-69-5 HCAPLUS
CN D-arabino-Hex-5-enitol, 2,6-anhydro-1,5-dideoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 136680-04-1 HCAPLUS
CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-6-O-(2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranosyl)-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



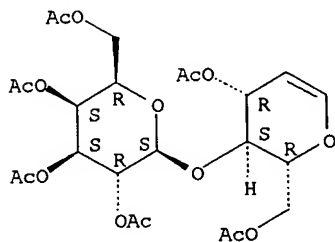
RE.CNT 2
RE

- (1) Lindner; US 3674866 A 1972 HCAPLUS
- (2) Weltzel; US 4684626 A 1987

=> d bib abs hitstr 153 2

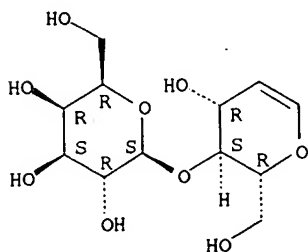
L53 ANSWER 2 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1999:199881 HCAPLUS
 DN 130:267680
 TI Synthesis of the phosphodisaccharide repeat of antigenic lipophosphoglycan of *Leishmania donovani* parasite
 AU Upreti, Mani; Vishwakarma, Ram A.
 CS Bio-organic Chemistry Laboratory, JNU Complex, National Institute of Immunology, Aruna Asaf Ali Marg, New Delhi, 110067, India
 SO Tetrahedron Lett. (1999), 40(13), 2619-2622
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 OS CASREACT 130:267680
 AB Synthesis of the immunol. important and structurally unusual phospho-disaccharide repeat unit (Galp1,4.beta.-Manp-1.alpha.-phosphate) of the lipophosphoglycan cell surface GPI mol. of the protozoan parasite *Leishmania donovani* has been carried out using lactose as the starting material. The synthesis provides a short and stereoselective route for the prepn. of this phospho-saccharide in a preparative scale.
 IT 51450-24-9P 65207-55-8P 222040-94-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (reaction of in the synthesis of the phospho-disaccharide repeat of antigenic lipophosphoglycan of *Leishmania donovani* parasite)
 RN 51450-24-9 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-4-O-(2,3,4,6-tetra-O-acetyl-.beta.-D-galactopyranosyl)-, diacetate. (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 65207-55-8 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-4-O-.beta.-D-galactopyranosyl- (9CI) (CA INDEX NAME)

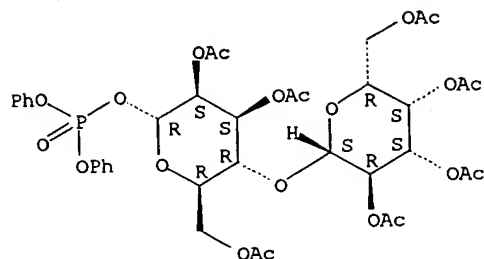
Absolute stereochemistry. Rotation (+).



RN 222040-94-0 HCAPLUS
 CN .alpha.-D-Mannopyranose, 4-O-(2,3,4,6-tetra-O-acetyl-.beta.-D-galactopyranosyl)-, 2,3,6-triacetate 1-(diphenyl phosphate) (9CI) (CA INDEX NAME)

SEARCHED BY SUSAN HANLEY 305-4053

Absolute stereochemistry.



IT 222040-96-2P

RL: **SPN (Synthetic preparation)**; PREP (Preparation)
 (reaction of in the synthesis of the phospho-disaccharide repeat of
 antigenic lipophosphoglycan of Leishmania donovani parasite)

RN 222040-96-2 HCAPLUS

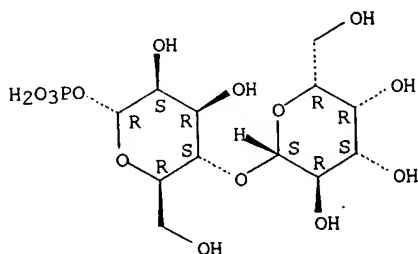
CN .alpha.-D-Mannopyranose, 4-O-.beta.-D-galactopyranosyl-, 1-(dihydrogen
 phosphate), compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 173240-56-7

CMF C12 H23 O14 P

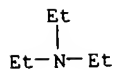
Absolute stereochemistry. Rotation (+).



CM 2

CRN 121-44-8

CMF C6 H15 N



RE.CNT 26

RE

- (1) Arasappan, A; J Org Chem 1996, V61, P2401 HCAPLUS
 - (2) Boger, D; J Am Chem Soc 1994, V116, P5647 HCAPLUS
 - (3) Brown, G; Eur J Biochem 1996, V242, P410 HCAPLUS
 - (4) Carver, M; Arch Biochem Biophys 1992, V295, P309 HCAPLUS
 - (5) Carver, M; J Biol Chem 1991, V266, P10974 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 153 3

L53 ANSWER 3 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 1998:405962 HCAPLUS

DN 129:81918

TI Preparation of 2-deoxy-2-fluoro-glycoside-bound nucleotides as glycosyltransferase inhibitors

IN Wong, Chi-huey; Hayashi, Takashi

PA Scripps Research Institute, USA; Wong, Chi-Huey; Hayashi, Takashi

SO PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9825940	A1	19980618	WO 1997-US22713	19971210
	W: AU, CA, JP, NZ, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5770407	A	19980623	US 1996-763227	19961210
	AU 9855995	A1	19980703	AU 1998-55995	19971210
PRAI	US 1996-763227		19961210		
	WO 1997-US22713		19971210		
AB	Nucleotide linked 2-deoxy-2-fluoroglycosides are employed as potent competitive inhibitors of glycosyltransferases. More particularly, uridine-5'-diphospho-2-deoxy-2-fluoro-galactose (UDP-2F-Gal), guanine-5'-diphospho-2-deoxy-2-fluoro-L-fucose (GDP-2F-Fuc), uridine-5'-diphospho-2-deoxy-2-fluoro-D-glucose (UDP-2F-Glu), guanosine-5'-diphospho-2-deoxy-2-fluoro-D-mannose (GDP-2F-Man), cytosine-5'-monophospho-2-deoxy-2-fluoro-D-sialic acid, and cytosine-5'-monophospho-2-deoxy-2-KDO may be employed as inhibitors of .beta.-1,4-galactosyltransferase, .alpha.-1,3-fucosyltransferase, glucosyltransferases, N-acetylglucosaminyltransferases, .alpha.-mannosyltransferases, .alpha.-sialyltransferases, and KDO-transferases, resp. Synthesis of nucleotide-linked-2-deoxy-2-fluoroglycosides is achieved using either chemoenzymic or chem. methodologies.				
IT	40591-57-9P 67341-43-9P 67341-46-2P 118694-15-8P 181427-98-5P 209005-22-1P 209005-23-2P 209005-24-3P 209005-25-4P 209005-27-6P RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of deoxyfluoroglycosidebound nucleotides as glycosyltransferase inhibitors)				
RN	40591-57-9 HCAPLUS				
CN	.beta.-L-Galactopyranose, 6-deoxy-, 1-(dihydrogen phosphate), compd. with cyclohexanamine (1:2) (9CI) (CA INDEX NAME)				

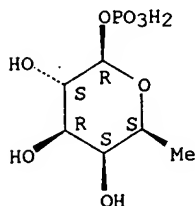
CM 1

CRN 16562-59-7

CMF C6 H13 O8 P

CDES 5:B-L-GALACTO

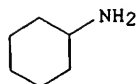
Absolute stereochemistry.



CM 2

CRN 108-91-8

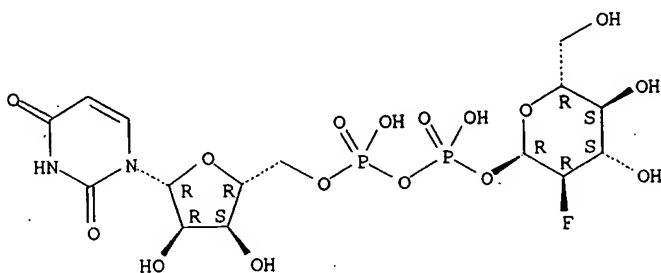
CMF C6 H13 N



RN 67341-43-9 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-(2-deoxy-2-fluoro-.alpha.-D-glucopyranosyl) ester (9CI) (CA INDEX NAME)

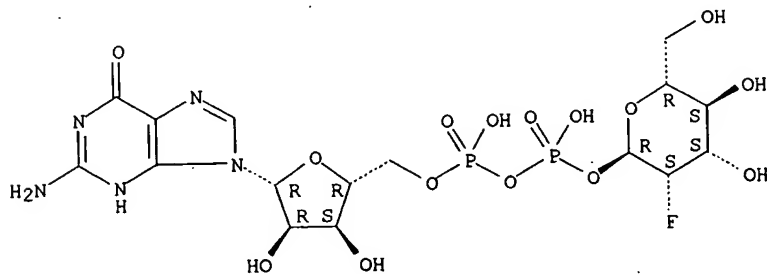
Absolute stereochemistry.



RN 67341-46-2 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-(2-deoxy-2-fluoro-.alpha.-D-mannopyranosyl) ester (9CI) (CA INDEX NAME)

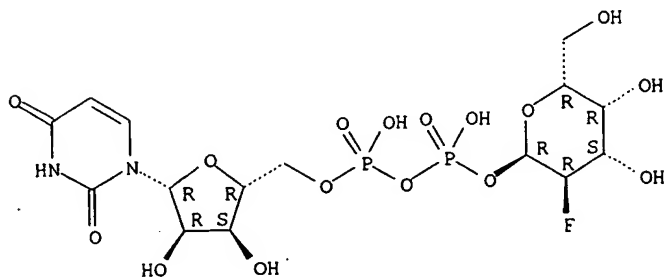
Absolute stereochemistry.



RN 118694-15-8 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-(2-deoxy-2-fluoro-.alpha.-D-galactopyranosyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

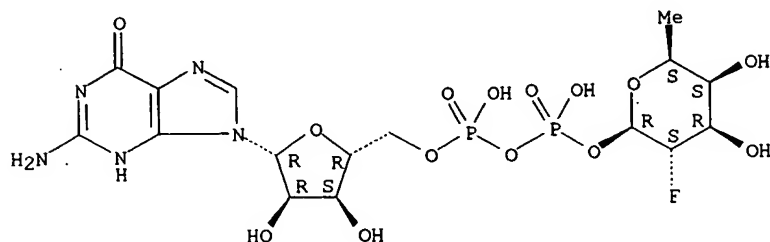


SEARCHED BY SUSAN HANLEY 305-4053

RN 181427-98-5 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-(2,6-dideoxy-2-fluoro-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

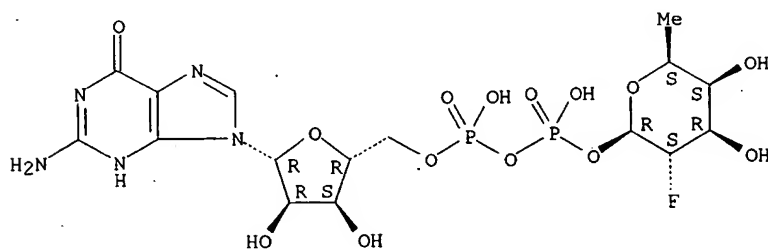
Absolute stereochemistry.



RN 209005-22-1 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-(2,6-dideoxy-2-fluoro-.beta.-L-galactopyranosyl) ester, monoammonium salt (9CI) (CA INDEX NAME)

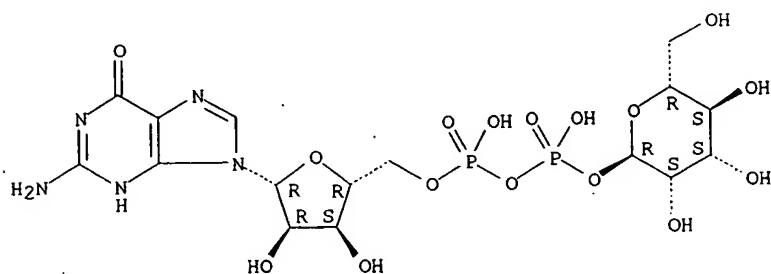
Absolute stereochemistry.

● NH₃

RN 209005-23-2 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-.alpha.-D-mannopyranosyl ester, monoammonium salt (9CI) (CA INDEX NAME)

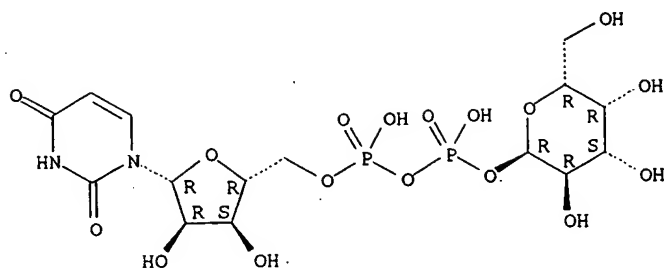
Absolute stereochemistry.

● NH₃

RN 209005-24-3 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-galactopyranosyl ester, monoammonium salt (9CI) (CA INDEX NAME)

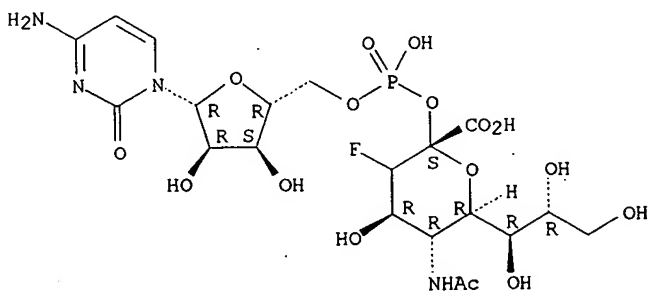
Absolute stereochemistry.

● NH₃

RN 209005-25-4 HCAPLUS

CN D-glycero-.beta.-D-galacto-2-Nonulopyranosonic acid, 5-(acetylamino)-3,5-dideoxy-3-fluoro-, 2-(hydrogen 5'-cytidylate), (3.xi.)- (9CI) (CA INDEX NAME)

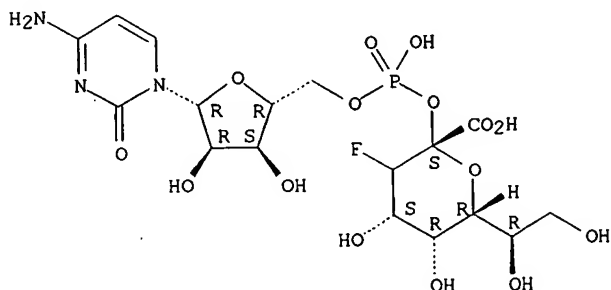
Absolute stereochemistry.



RN 209005-27-6 HCAPLUS

CN .beta.-D-manno-2-Octulopyranosonic acid, 3-deoxy-3-fluoro-, 2-(hydrogen 5'-cytidylate), (3.xi.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 2873-29-2, 3,4,6-Tri-O-acetyl glucal 21193-75-9,

D-Galactal 54621-94-2 80483-16-5, L-Fucal

RL: RCT (Reactant)

(prepn. of deoxyfluoroglycosidebound nucleotides as glycosyltransferase inhibitors)

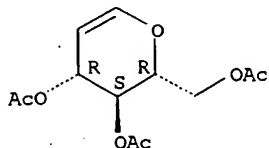
RN 2873-29-2 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

SEARCHED BY SUSAN HANLEY 305-4053

NAME)

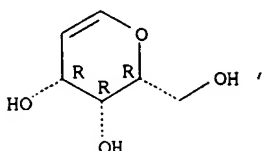
Absolute stereochemistry. Rotation (-).



RN 21193-75-9 HCAPLUS

CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy- (9CI) (CA INDEX NAME)

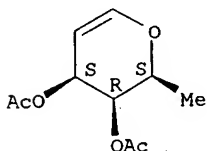
Absolute stereochemistry.



RN 54621-94-2 HCAPLUS

CN L-arabino-Hex-5-enitol, 2,6-anhydro-1,5-dideoxy-, diacetate (9CI) (CA INDEX NAME)

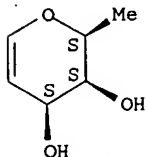
Absolute stereochemistry.



RN 80483-16-5 HCAPLUS

CN L-arabino-Hex-5-enitol, 2,6-anhydro-1,5-dideoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 109959-19-5P 118759-95-8P 128473-02-9P

188783-82-6P 209005-11-8P 209005-12-9P

209005-14-1P 209005-19-6P 209005-20-9P

209005-21-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation)(prepn. of deoxyfluoroglycosidebound nucleotides as glycosyltransferase
inhibitors)

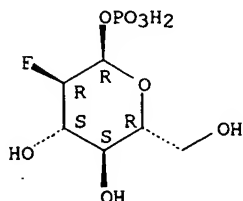
RN 109959-19-5 HCAPLUS

CN .alpha.-D-Glucopyranose, 2-deoxy-2-fluoro-, 1-(dihydrogen phosphate),
compd. with cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

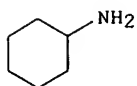
CRN 109959-18-4
CMF C6 H12 F O8 P
CDES 5:A-D-GLUCO

Absolute stereochemistry.



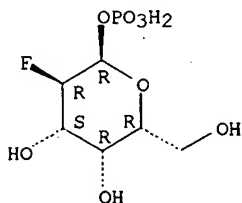
CM 2

CRN 108-91-8
CMF C6 H13 N



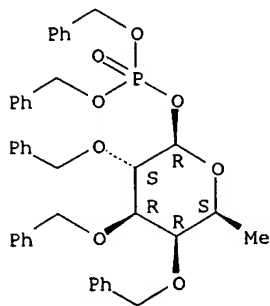
RN 118759-95-8 HCAPLUS
CN .alpha.-D-Galactopyranose, 2-deoxy-2-fluoro-, 1-(di-hydrogen phosphate)
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 128473-02-9 HCAPLUS
CN .beta.-L-Galactopyranose, 6-deoxy-2,3,4-tris-O-(phenylmethyl)-,
bis(phenylmethyl) phosphate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

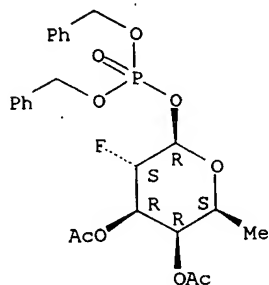


RN 188783-82-6 HCAPLUS
CN .beta.-L-Galactopyranose, 2,6-dideoxy-2-fluoro-, 3,4-diacetate

SEARCHED BY SUSAN HANLEY 305-4053

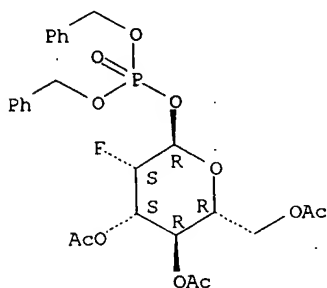
1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 209005-11-8 HCAPLUS
CN .alpha.-D-Mannopyranose, 2-deoxy-2-fluoro-, 3,4,6-triacetate
1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

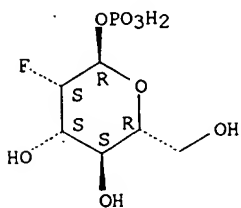


RN 209005-12-9 HCAPLUS
CN .alpha.-D-Mannopyranose, 2-deoxy-2-fluoro-, 1-(dihydrogen phosphate),
compd. with cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

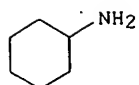
CRN 177186-86-6
CMF C6 H12 F O8 P
CDES 5:A-D-MANNO

Absolute stereochemistry.



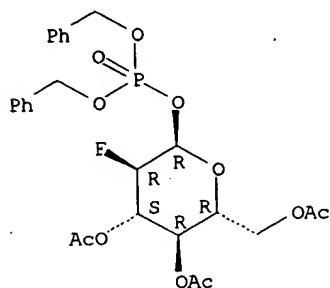
CM 2

CRN 108-91-8
CMF C6 H13 N



RN 209005-14-1 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2-deoxy-2-fluoro-, 3,4,6-triacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

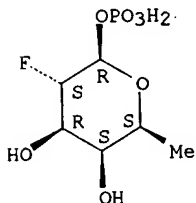


RN 209005-19-6 HCAPLUS
 CN .beta.-L-Galactopyranose, 2,6-dideoxy-2-fluoro-, 1-(dihydrogen phosphate),
 compd. with cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

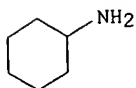
CRN 209005-18-5
 CMF C6 H12 F O7 P

Absolute stereochemistry.



CM 2

CRN 108-91-8
 CMF C6 H13 N



RN 209005-20-9 HCAPLUS
 CN .beta.-L-Galactopyranose, 2,6-dideoxy-2-fluoro-, 3,4-diacetate
 1-(dihydrogen phosphate), compd. with N,N-diethylethanamine (1:1) (9CI)
 (CA INDEX NAME)

CM 1

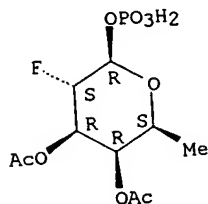
CRN 181428-48-8

SEARCHED BY SUSAN HANLEY 305-4053

LEE 09/413,381

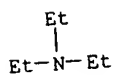
CMF C10 H16 F O9 P
CDES 5:B-L-GALACTO

Absolute stereochemistry.



CM 2

CRN 121-44-8
CMF C6 H15 N

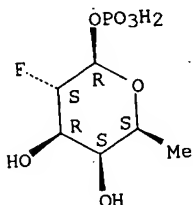


RN 209005-21-0 HCAPLUS
CN .beta.-L-Galactopyranose, 2,6-dideoxy-2-fluoro-, 1-(dihydrogen phosphate),
compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

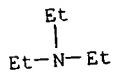
CRN 209005-18-5
CMF C6 H12 F O7 P

Absolute stereochemistry.



CM 2

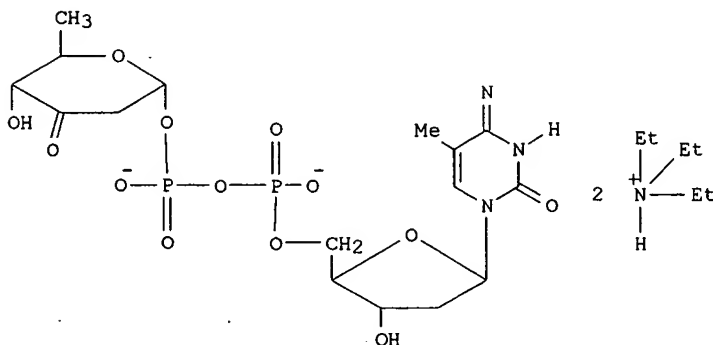
CRN 121-44-8
CMF C6 H15 N



SEARCHED BY SUSAN HANLEY 305-4053

=> d bib abs hitstr 153 4

L53 ANSWER 4 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1997:530916 HCAPLUS
 DN 127:205794
 TI Investigations towards the synthesis of dTDP-2,6-dideoxy-D-erythro-3-hexulose - a potential intermediate in the biosynthesis of rare sugars
 AU Mueller, Thomas; Schmidt, Richard R.
 CS Fakultat Chemie, Universitat Konstanz, Konstanz, D-78457, Germany
 SO Tetrahedron Lett. (1997), 38(31), 5473-5476
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier
 DT Journal
 LA English
 GI



AB The synthesis of the target mol. I is based on the hexyldimethylsilyl 4-O-acetyl-2,3,6-trideoxy-3-C-methylene-.beta.-D-erythro-hexopyranoside which is readily obtained via two different routes from tri-O-acetyl-D-glucal. Replacement of the anomeric silyl group by the diethylphosphite group, then performing a phosphite/phosphate exchange reaction, and finally removal of all protective groups afforded an .alpha./beta.-mixture of 2,3,6-tri-deoxy-3-C-methylene-D-erythro-hexopyranosyl phosphate; its ozonolysis furnished the corresponding 3-ulose. Treatment with dTMP-morpholidate in pyridine led to the 3-C-methylene analog of the target mol.; ozonolysis afforded I which - as expected - experienced relatively fast .beta.-elimination under work-up conditions.

IT 2873-29-2, Tri-O-acetyl-D-glucal

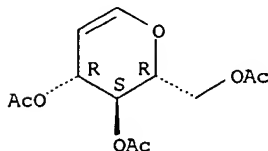
RL: RCT (Reactant)

(investigations towards the prepn. of dTDP-2,6-dideoxy-D-erythro-3-hexulose)

RN 2873-29-2 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 78086-61-0P 148553-47-3P 194590-91-5P
 194590-93-7P 194591-03-2P 194592-67-1P

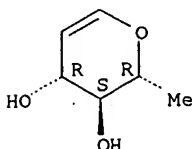
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation)

(investigations towards the prepn. of dTDP-2,6-dideoxy-D-erythro-3-hexulose)

RN 78086-61-0 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy- (9CI) (CA INDEX NAME)

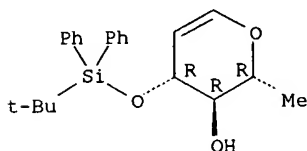
Absolute stereochemistry.



RN 148553-47-3 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-3-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

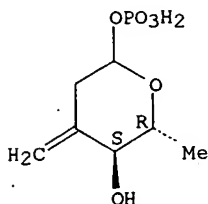
Absolute stereochemistry.



RN 194590-91-5 HCAPLUS

CN 2H-Pyran-2,5-diol, tetrahydro-6-methyl-4-methylene-, 2-(dihydrogen phosphate), disodium salt, (5S,6R)-[partial]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 2 Na

RN 194590-93-7 HCAPLUS

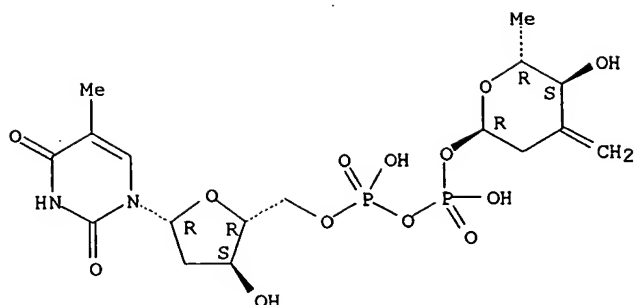
CN Thymidine 5'-(trihydrogen diphosphate), P'-[(2R,5S,6R)-tetrahydro-5-hydroxy-6-methyl-4-methylene-2H-pyran-2-yl] ester, compd. with N,N-diethylethanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

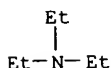
CRN 194590-92-6

CMF C17 H26 N2 O13 P2

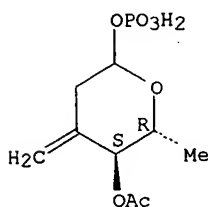
Absolute stereochemistry.



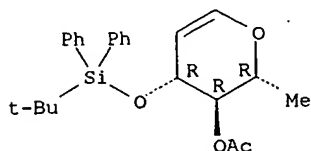
CM 2

CRN 121-44-8
CMF C6 H15 NRN 194591-03-2 HCAPLUS
CN 2H-Pyran-2,5-diol, tetrahydro-6-methyl-4-methylene-, 5-acetate
2-(dihydrogen phosphate), (5S,6R)-[partial]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 194592-67-1 HCAPLUS
CN D-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-3-O-[(1,1-dimethylethyl)diphenylsilyl]-, acetate (9CI) (CA INDEX NAME)

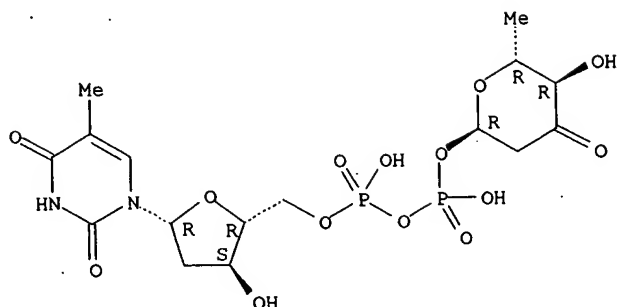
Absolute stereochemistry.

IT 194590-86-8P 194590-94-8P 194590-96-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(investigations towards the prepn. of dTDP-2,6-dideoxy-D-erythro-3-hexulose)
RN 194590-86-8 HCAPLUS
CN Thymidine 5'-(trihydrogen diphosphate), P'-(2,6-dideoxy-.alpha.-D-erythro-hexopyranos-3-ulos-1-yl) ester, compd. with N,N-diethylethanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

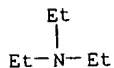
CRN 194590-85-7
CMF C16 H24 N2 O14 P2

Absolute stereochemistry.



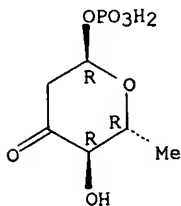
CM 2

CRN 121-44-8
CMF C6 H15 N



RN 194590-94-8 HCAPLUS
CN .alpha.-D-erythro-Hexopyranos-3-ulose, 2,6-dideoxy-, 1-(dihydrogen phosphate), disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



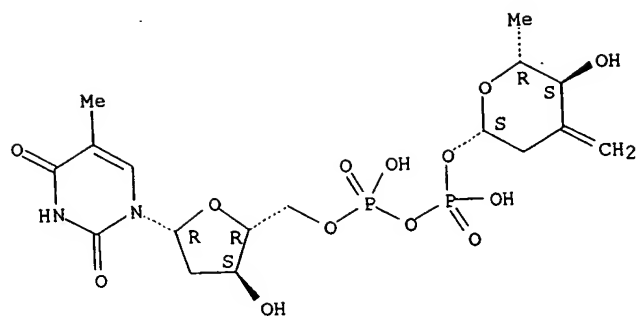
● 2 Na

RN 194590-96-0 HCAPLUS
CN Thymidine 5'-(trihydrogen diphosphate), P'-[(2S,5S,6R)-tetrahydro-5-hydroxy-6-methyl-4-methylene-2H-pyran-2-yl] ester, compd. with N,N-diethylethanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

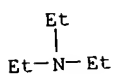
CRN 194590-95-9
CMF C17 H26 N2 O13 P2

Absolute stereochemistry.



CM 2

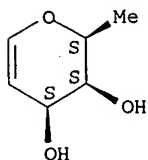
CRN 121-44-8
CMF C6 H15 N



=> d bib abs hitstr 153 5

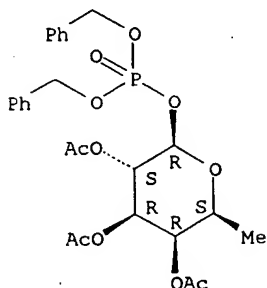
L53 ANSWER 5 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1997:146171 HCAPLUS
 DN 126:264289
 TI Convenient: chemo-enzymic preparation of .beta.-purine-diphosphate sugars (GDP-fucose-analogs)
 AU Baisch, Gabi; Ohrlein, Reinhold
 CS Central Res. Lab., CIBA AG, Basel, CH-4002, Switz.
 SO Bioorg. Med. Chem. (1997), 5(2), 383-391
 CODEN: BMECEP; ISSN: 0968-0896
 PB Elsevier
 DT Journal
 LA English
 AB A series of peracetylated .beta.-sugar-1-phosphates with L-fuco configuration are efficiently prepd. chem. and coupled in high yields to purine monophosphate bases via imidazolid activation. The resulting purine diphosphate sugars are deacetylated completely by a mild treatment with com. acetylsterase (EC 3.1.1.6) to give donor-substrates for fucosyltransferases.
 IT 80483-16-5P, L-Fucal 128473-05-2P 128473-09-6P
 181427-06-5P 181428-28-4P 181428-48-8P
 181428-65-9P 181657-50-1P 181657-51-2P
 188783-51-9P 188783-55-3P 188783-73-5P
 188783-82-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation)
 (chemo-enzymic prepn. of .beta.-purine-diphosphate nucleotides with acetylsterase)
 RN 80483-16-5 HCAPLUS
 CN L-arabino-Hex-5-enitol, 2,6-anhydro-1,5-dideoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



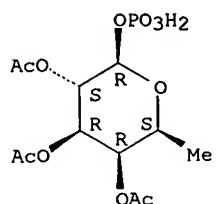
RN 128473-05-2 HCAPLUS
 CN .beta.-L-Galactopyranose, 6-deoxy-, 2,3,4-triacetate 1-[bis(phenylmethyl)phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 128473-09-6 HCAPLUS
 CN .beta.-L-Galactopyranose, 6-deoxy-, 2,3,4-triacetate 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

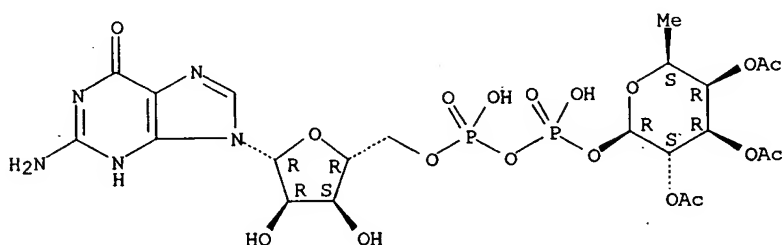
Absolute stereochemistry.



RN 181427-06-5 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate); P'-(2,3,4-tri-O-acetyl-6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

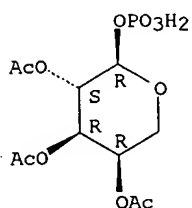
Absolute stereochemistry.



RN 181428-28-4 HCAPLUS

CN .alpha.-D-Arabinopyranose, 2,3,4-triacetate 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

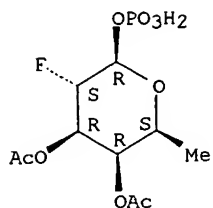
Absolute stereochemistry.



RN 181428-48-8 HCAPLUS

CN .beta.-L-Galactopyranose, 2,6-dideoxy-2-fluoro-, 3,4-diacetate 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

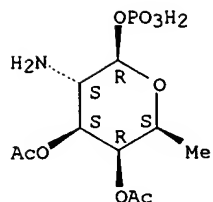


RN 181428-65-9 HCAPLUS

CN .beta.-L-Galactopyranose, 2-amino-2,6-dideoxy-, 3,4-diacetate 1-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

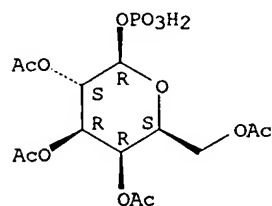
Absolute stereochemistry.

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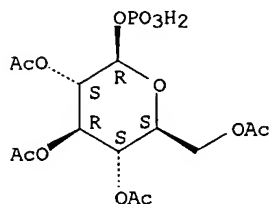
RN 181657-50-1 HCAPLUS
CN .beta.-L-Galactopyranose, 2,3,4,6-tetraacetate 1-(dihydrogen phosphate)
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



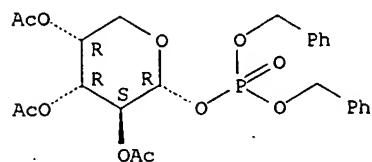
RN 181657-51-2 HCAPLUS
CN .beta.-L-Glucopyranose, 2,3,4,6-tetraacetate 1-(dihydrogen phosphate)
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



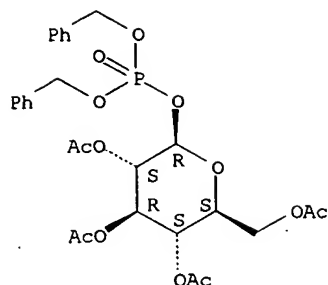
RN 188783-51-9 HCAPLUS
CN .alpha.-D-Arabinopyranose, 2,3,4-triacetate 1-[bis(phenylmethyl)
phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 188783-55-3 HCAPLUS
CN .beta.-L-Glucopyranose, 2,3,4,6-tetraacetate 1-[bis(phenylmethyl)
phosphate] (9CI) (CA INDEX NAME)

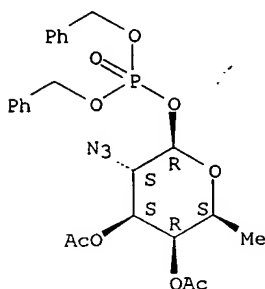
Absolute stereochemistry.



RN 188783-73-5 HCAPLUS

CN .beta.-L-Galactopyranose, 2-azido-2,6-dideoxy-, 3,4-diacetate
1-[(bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

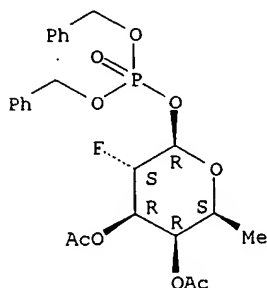
Absolute stereochemistry.



RN 188783-82-6 HCAPLUS

CN .beta.-L-Galactopyranose, 2,6-dideoxy-2-fluoro-, 3,4-diacetate
1-[(bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 181427-77-0P 181427-83-8P 181427-98-5P

181428-04-6P 181428-13-7P 188783-30-4P

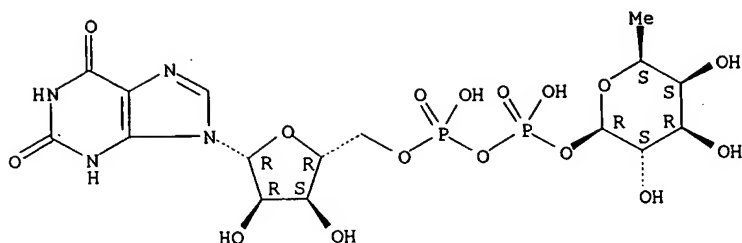
RL: SPN (Synthetic preparation); PREP (Preparation)

(chemo-enzymic prepn. of .beta.-purine-diphosphate nucleotides with
acetyl esterase)

RN 181427-77-0 HCAPLUS

CN Xanthosine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-
galactopyranosyl) ester (9CI) (CA INDEX NAME)

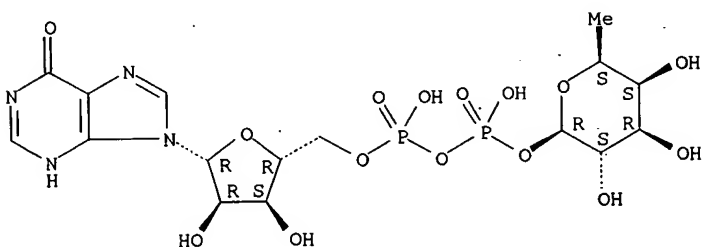
Absolute stereochemistry.



RN 181427-83-8 HCAPLUS

CN Inosine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

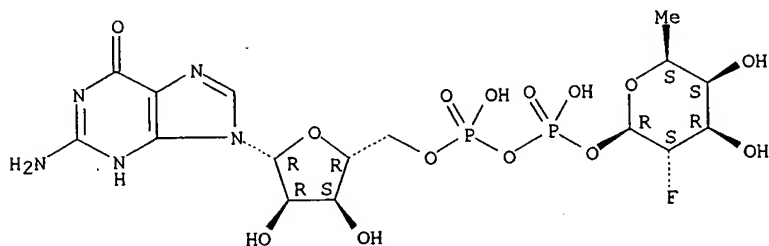
Absolute stereochemistry.



RN 181427-98-5 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-(2,6-dideoxy-2-fluoro-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

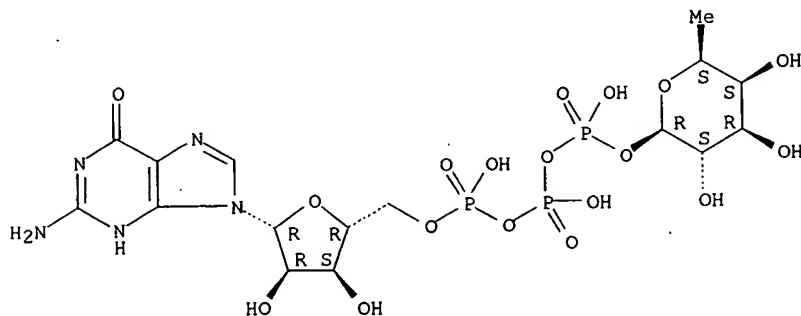
Absolute stereochemistry.



RN 181428-04-6 HCAPLUS

CN Guanosine 5'-(tetrahydrogen triphosphate), P'-(6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

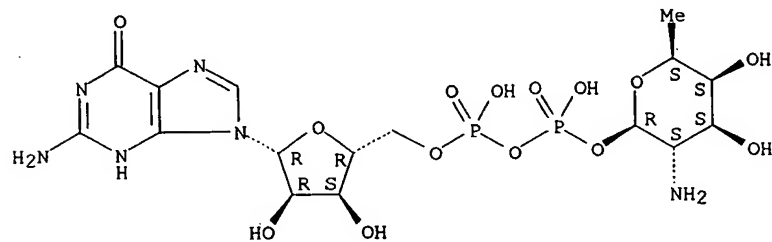
Absolute stereochemistry.



RN 181428-13-7 HCAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), P'-(2-amino-2,6-dideoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

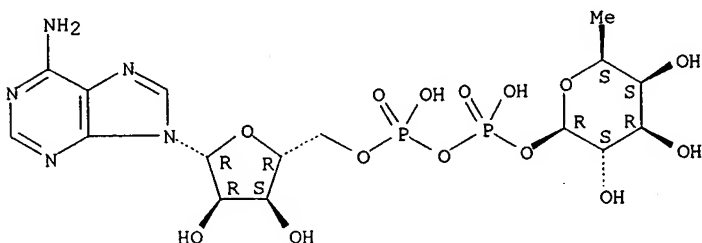
Absolute stereochemistry.



RN 188783-30-4 HCAPLUS

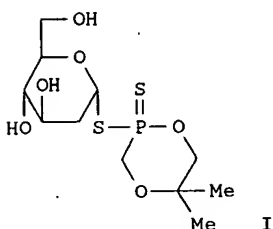
CN Adenosine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-galactopyranosyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 153 6

L53 ANSWER 6 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1995:111212 HCAPLUS
 DN 122:31780
 TI Synthesis of unprotected 2-deoxyglycosyl donors, S-(2-deoxy-.alpha.-D-arabino-hexopyranosyl)-O,O-dialkylphosphorodithioates
 AU Kudelska, W.; Czyzewska-Chlebny, J.; Michalska, M.
 CS Lab. Organic Chem., Inst. Chemistry, Medical Univ., Lodz, 90-151, Pol.
 SO Pol. J. Chem. (1994), 68(9), 1767-73
 CODEN: PJCHDQ; ISSN: 0137-5083
 DT Journal
 LA English
 OS CASREACT 122:31780
 GI



AB Sugar-O-unprotected S-(2-deoxyglycosyl)phosphorodithioates, e.g. I, were synthesized by two routes: by Addn. of O,O-dialkylphosphorodithioic acids to unsubstituted D-glucal or deprotection of the adducts obtained by addn. of phosphorodithioic acids to 4,6-O-isopropylidene-D-glucal. These sugar-O-unprotected 2-deoxyglycosyl phosphorodithioates were obtained in high yield and their ability to act as glycosyl donors was demonstrated.

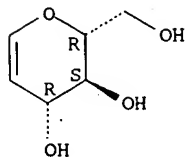
IT 13265-84-4

RL: RCT (Reactant)
 (prepn. of deoxyarabinohexopyranosyl dialkylphosphorodithioates via addn. of glucal with phosphorodithiates)

RN 13265-84-4 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 159831-61-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation)

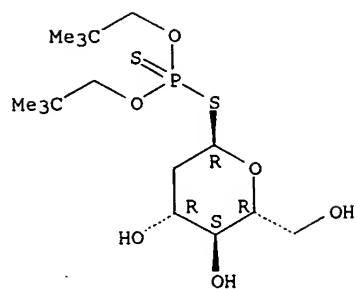
(prepn. of deoxyarabinohexopyranosyl dialkylphosphorodithioates via addn. of glucal with phosphorodithiates)

RN 159831-61-5 HCAPLUS

CN .alpha.-D-Arabinopyranose, 1-thio-, 1-[O,O-bis(2,2-dimethylpropyl) phosphorodithioate] (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

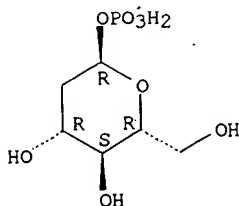
LEE 09/413,381



=> d bib abs hitstr 153 7

L53 ANSWER 7 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1994:701176 HCAPLUS
 DN 121:301176
 TI Synthesis of 2-deoxy-.alpha.-D-arabino-hexopyranosyl phosphate and 2-deoxy-maltooligosaccharides with phosphorylase
 AU Evers, Britta; Mischnick, Petra; Thiem, Joachim
 CS Institut fuer Organische Chemie, Universitaet Hamburg, Martin-Luther-King-Platz 6, Hamburg, D-20146, Germany
 SO Carbohydr. Res. (1994), 262(2), 335-41
 CODEN: CRBRAT; ISSN: 0008-6215
 DT Journal
 LA English
 OS CASREACT 121:301176
 AB A convenient one-step synthesis of 2-deoxy-.alpha.-D-arabino-hexopyranosyl phosphate on a millimolar scale is described by reaction of potato phosphorylase with D-glucal at equimolar phosphate concn. Furthermore, in the presence of catalytic amts. of phosphate, a 2-deoxy-maltooligosaccharide is obtained from maltotetraose and D-glucal. The water-insol. oligosaccharide was isolated and characterized by 1H and 13C NMR spectroscopy. An av. dp of 20 was thus detd.
 IT **159051-34-0P**
 RL: BPN (Biosynthetic preparation); **SPN (Synthetic preparation)**; BIOL (Biological study); PREP (Preparation)
 (synthesis of deoxyarabinohexopyranosyl phosphate and deoxymalto-oligosaccharides with phosphorylase)
 RN 159051-34-0 HCAPLUS
 CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-, 1-(dihydrogen phosphate), disodium salt (9CI) (CA INDEX NAME)

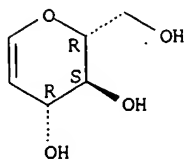
Absolute stereochemistry. Rotation (+).



●2 Na

IT **13265-84-4, D-Glucal**
 RL: RCT (Reactant)
 (synthesis of deoxyarabinohexopyranosyl phosphate and deoxymalto-oligosaccharides with phosphorylase)
 RN 13265-84-4 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



LEE 09/413,381

SEARCHED BY SUSAN HANLEY 305-4053

Page 29

=> d bib abs hitstr 153 8

L53 ANSWER 8 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 1994:192319 HCAPLUS

DN 120:192319

TI Preparation of oligosaccharides as inhibitors of sialic acid-containing sugar chains' biosynthesis and related intermediates

IN Kodama, Hisashi; Hashimoto, Hironobu; Kajihara, Yasuhiro

PA Japan Tobacco, Inc., Japan

SO Eur. Pat. Appl., 13 pp.

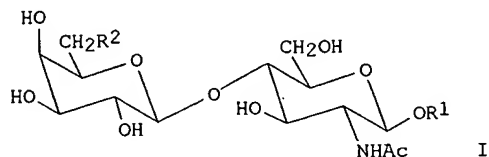
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 561523	A2	19930922	EP 1993-301554	19930301
	EP 561523	A3	19930929		
	R: DE, FR, GB				
	JP 05247078	A2	19930924	JP 1992-45419	19920303
	US 5441932	A	19950815	US 1993-25051	19930302
PRAI	JP 1992-45419		19920303		
OS	MARPAT 120:192319				
GI					



AB Title compds. I [R1 = H, (un)substituted aliph. hydrocarbyl, (un)substituted aryl, a peptide residue, sugar residue; R2 = H, sulfhydryl, acyloxy, acylthio, aryloxy, alkoxy, sugar residue, glycothio residue] useful as inhibitors of sialic acid-contg. sugar chains' biosynthesis were prepd. Thus, a mixt. of UDP-6-deoxy-D-galactose Na salt and asialoagalacto .alpha.2-macroglobulin was treated with manganese chloride and galactosyltransferase in HEPES buffer soln to give 2-acetamide-2-deoxy-4-O-(6-deoxy-.beta.-D-galactopyranosyl)-.beta.-D-glucopyranosylated .alpha.2-macroglobulin (II). II showed an IC50 of 1.0x10⁻⁶ M against .beta.-galactoside-.alpha.-2,6-sialyltransferase.

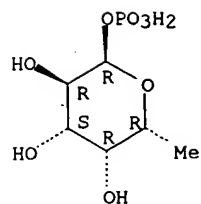
IT 152646-75-8P 152646-76-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of and prepn. of biosynthesis inhibitor)

RN 152646-75-8 HCAPLUS

CN .alpha.-D-Galactopyranose, 6-deoxy-, 1-(dihydrogen phosphate), ammonium salt (9CI) (CA INDEX NAME)

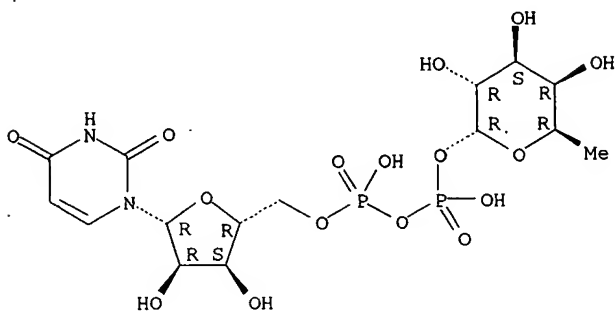
Absolute stereochemistry.



●x NH₃

RN 152646-76-9 HCAPLUS
 CN Uridine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.alpha.-D-galactopyranosyl) ester, diammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



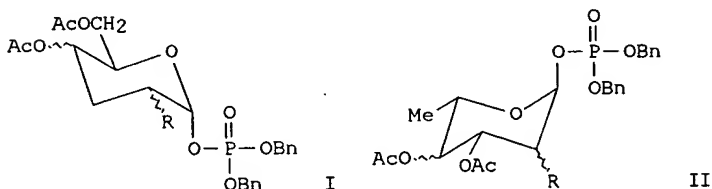
●2 NH₃

IT 110-87-2P
 RL: PREP (Preparation)
 (reaction of and synthesis of biosynthesis inhibitors)
 RN 110-87-2 HCAPLUS
 CN 2H-Pyran, 3,4-dihydro- (8CI, 9CI) (CA INDEX NAME)



=> d bib abs hitstr 153 9

L53 ANSWER 9 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1994:135018 HCAPLUS
 DN 120:135018
 TI Synthetic approaches to 2-deoxyglycosyl phosphates
 AU Niggemann, Jutta; Lindhorst, Thisbe K.; Walfort, Martina; Laupichler, Lothar; Sajus, Henry; Thiem, Joachim
 CS Inst. Org. Chem., Univ. Hamburg, Hamburg, D-2000/13, Germany
 SO Carbohydr. Res. (1993), 246, 173-83
 CODEN: CRBRAT; ISSN: 0008-6215
 DT Journal
 LA English
 OS CASREACT 120:135018
 GI



AB By the use of the N-iodosuccinimide procedure, various glycals could be converted into 2-deoxyglycosyl phosphates, e.g. I and II (R = H, iodo). The application of S-(2-deoxyglycosyl) and phosphorodithioates as glycosyl donors provided the most convenient way to dibenzyl 2-deoxyglycosyl phosphates.

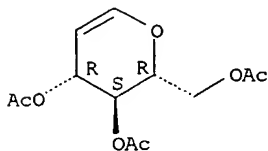
IT 2873-29-2 34819-86-8 52945-57-0
 54621-94-2

RL: RCT (Reactant)
 (iodophosphorylation, with N-iodosuccinamide and dibenzyl phosphate)

RN 2873-29-2 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

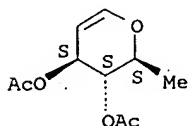
Absolute stereochemistry. Rotation (-).



RN 34819-86-8 HCAPLUS

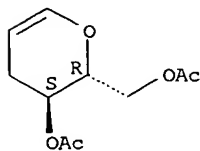
CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



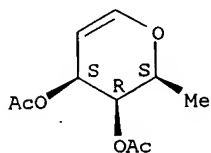
RN 52945-57-0 HCAPLUS
 CN D-erythro-Hex-1-enitol, 1,5-anhydro-2,3-dideoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 54621-94-2 HCAPLUS
 CN L-arabino-Hex-5-enitol, 2,6-anhydro-1,5-dideoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

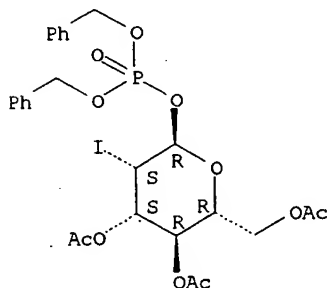


IT 153180-56-4P 153180-57-5P 153180-58-6P
 153180-59-7P 153180-60-0P 153180-61-1P
 153180-62-2P 153180-63-3P 153180-65-5P
 153180-66-6P 153180-67-7P 153180-68-8P
 153214-41-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)

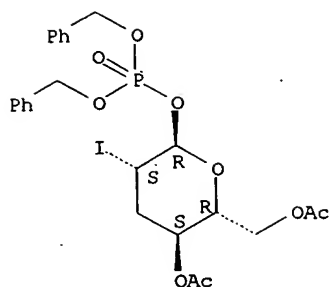
RN 153180-56-4 HCAPLUS
 CN .alpha.-D-Mannopyranose, 2-deoxy-2-iodo-, 3,4,6-triacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



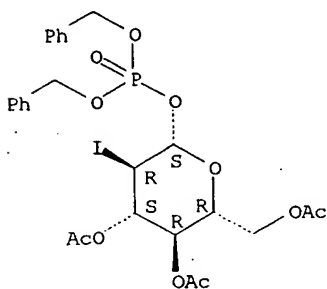
RN 153180-57-5 HCAPLUS
 CN .alpha.-D-arabino-Hexopyranose, 2,3-dideoxy-2-iodo-, 4,6-diacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



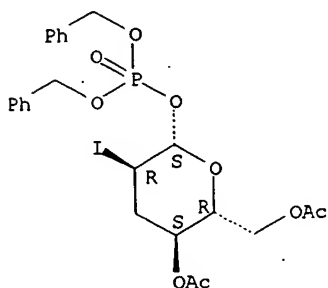
RN 153180-58-6 HCAPLUS
 CN .beta.-D-Glucopyranose, 2-deoxy-2-iodo-, 3,4,6-triacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



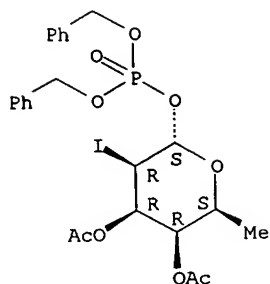
RN 153180-59-7 HCAPLUS
 CN .beta.-D-ribo-Hexopyranose, 2,3-dideoxy-2-iodo-, 4,6-diacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



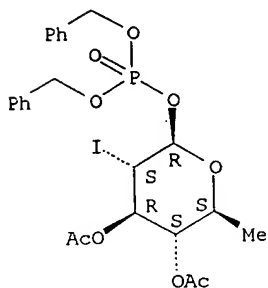
RN 153180-60-0 HCAPLUS
 CN .alpha.-L-Talopyranose, 2,6-dideoxy-2-iodo-, 3,4-diacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



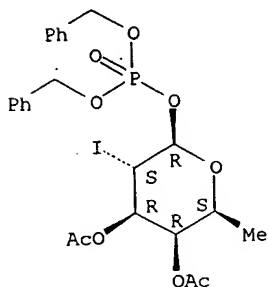
RN 153180-61-1 HCAPLUS
 CN .beta.-L-Glucopyranose, 2,6-dideoxy-2-iodo-, 3,4-diacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



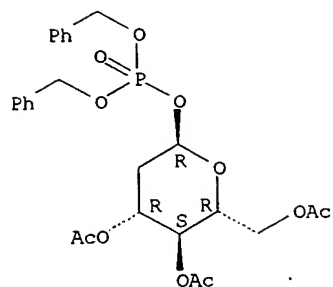
RN 153180-62-2 HCAPLUS
 CN .beta.-L-Galactopyranose, 2,6-dideoxy-2-iodo-, 3,4-diacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 153180-63-3 HCAPLUS
 CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-, 3,4,6-triacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

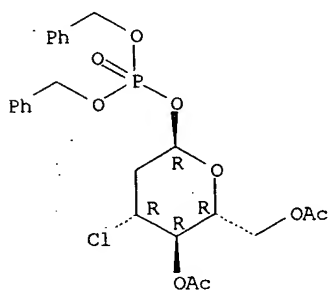
Absolute stereochemistry.



RN 153180-65-5 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 3-chloro-2,3-dideoxy-, 4,6-diacetate
1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

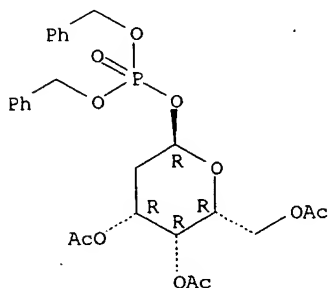
Absolute stereochemistry.



RN 153180-66-6 HCAPLUS

CN .alpha.-D-lyxo-Hexopyranose, 2-deoxy-, 3,4,6-triacetate
1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

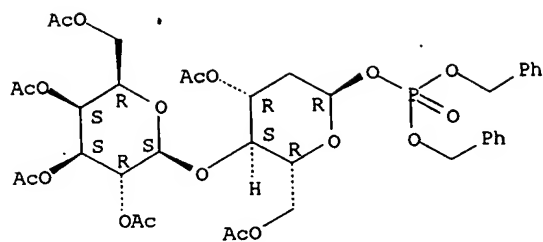
Absolute stereochemistry.



RN 153180-67-7 HCAPLUS

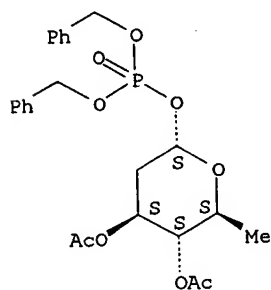
CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-4-O-(2,3,4,6-tetra-O-acetyl-.beta.-
D-galactopyranosyl)-, 3,6-diacetate 1-[bis(phenylmethyl) phosphate] (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



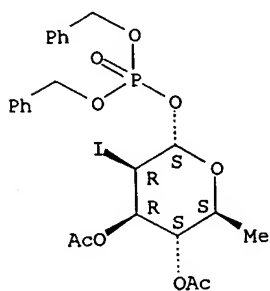
RN 153180-68-8 HCAPLUS
 CN .alpha.-L-arabino-Hexopyranose, 2,6-dideoxy-, 3,4-diacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



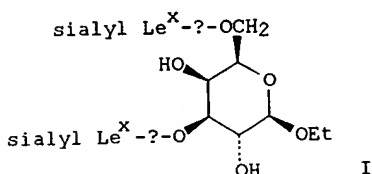
RN 153214-41-6 HCAPLUS
 CN .alpha.-L-Mannopyranose, 2,6-dideoxy-2-iodo-, 3,4-diacetate
 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 153 10

L53 ANSWER 10 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1993:581115 HCAPLUS
 DN 119:181115
 TI Ligand recognition by E-selectin: analysis of conformation and activity of synthetic monomeric and bivalent sialyl Lewis X analogs
 AU DeFrees, Shawn A.; Gaeta, Federico C. A.; Lin, Ying Chih; Ichikawa, Yoshitaka; Wong, Chi Huey
 CS Cytel Corp., San Diego, CA, 92121, USA
 SO J. Am. Chem. Soc. (1993), 115(16), 7549-50
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 GI



AB Sialyl Lewis x glycal was found to be as active as sialyl Lewis x as an inhibitor of E-selectin-mediated adhesion ($IC_{50} = 2.1 \text{ mM}$). The nonasaccharide I, comprising 2 sialyl Lewis x glycotopes anchored on a galactose residue via .beta.-1,3- and .beta.-1,6-linkages is, however, 5-fold better than sialyl Lewis x and 4-fold better than the pentasaccharide sialyl Lewis x-.beta.1,3Gal.beta.OEt, suggesting a multivalent ligand-receptor interaction. I was prepd. by sequential enzymic glycosylation (addn. of 2 same sugar units each time!) of the chem. synthesized trisaccharide GlcNAc.beta.1,4(GlcNAc.beta.1,6)Gal.beta.OEt using .beta.1,4 galactosyltransferase, .alpha.2,3-sialyltransferase and .alpha.1,3-fucosyltransferase, and 2 equiv each of the corresponding sugar nucleotides. Conformational anal. with NMR of the glycal and the bivalent sialyl Lewis x indicates a single rigid and identical structure in the Neu5Ac-Gal-Fuc region. This study together with the information obtained from other analogs reveals that the active binding domain of sialyl Lewis x comes from a 10 .ANG.-space area composed of Gal, Fuc and the -CO₂-group of Neu5Ac. The exo-anomeric effects of Gal and Fuc fix the topog. structure of these 2 residues when attached to an ethylene glycol unit via .beta.- and .alpha.-glycosidic linkages, resp.

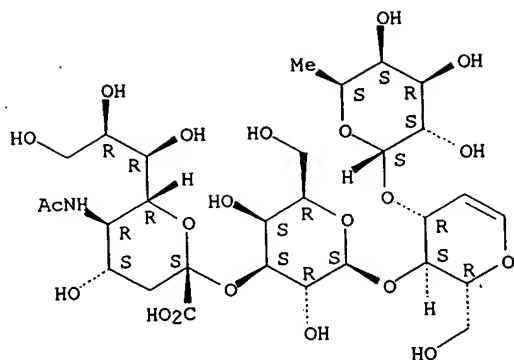
IT 142800-36-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and binding of, by E-selectin)

RN 142800-36-0 HCAPLUS

CN D-arabino-Hex-1-enitol, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-1,5-anhydro-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



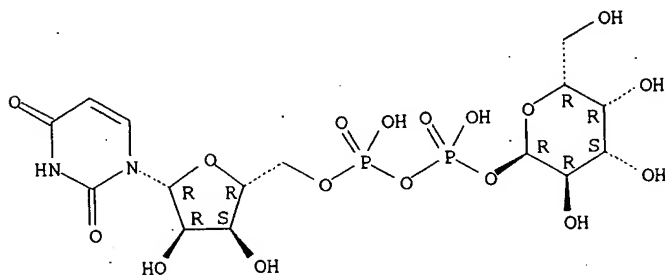
IT 2956-16-3P 3063-71-6P 15839-70-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(reactant in prepn. of bivalent sialyl Lewisx)

RN 2956-16-3 HCAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-alpha.-D-galactopyranosyl ester
(9CI) (CA INDEX NAME)

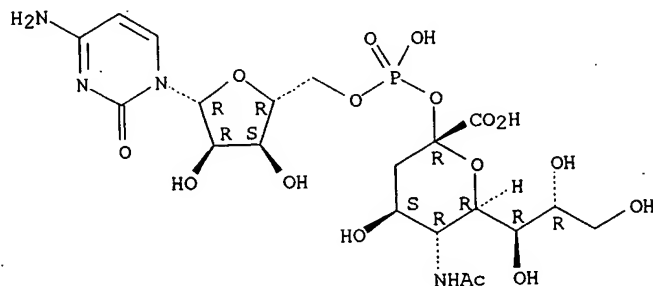
Absolute stereochemistry.



RN 3063-71-6 HCAPLUS

CN .beta.-Neuraminic acid, N-acetyl-, 2-(hydrogen 5'-cytidylate) (9CI) (CA
INDEX NAME)

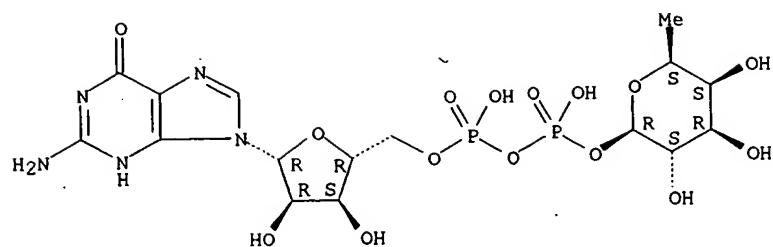
Absolute stereochemistry.



RN 15839-70-0 HCAPLUS

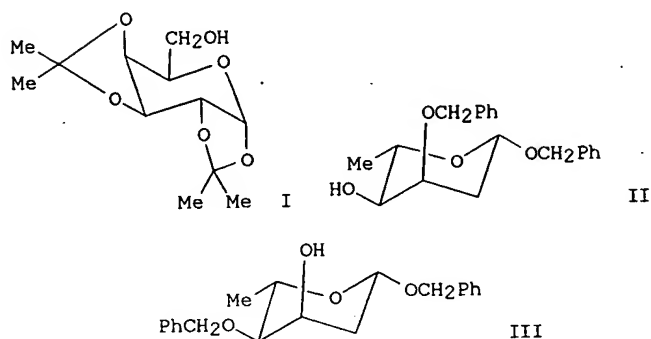
CN Guanosine 5'-(trihydrogen diphosphate), P'-(6-deoxy-.beta.-L-
galactopyranosyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 153 11

L53 ANSWER 11 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1993:169461 HCAPLUS
 DN 118:169461
 TI Convenient iodonium-promoted stereoselective synthesis of
 2-deoxy-.alpha.-glycosides by use of S-(2-deoxyglycosyl)phosphorodithioate
 s as donors
 AU Laupichler, Lothar; Sajus, Henry; Thiem, Joachim
 CS Inst. Org. Chem., Univ. Hamburg, Hamburg, D-2000/13, Germany
 SO Synthesis (1992), (11), 1133-6
 CODEN: SYNTBF; ISSN: 0039-7881
 DT Journal
 LA English
 OS CASREACT 118:169461
 GI

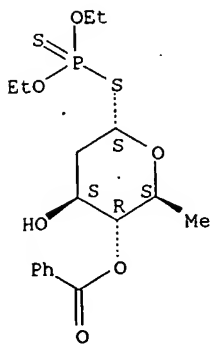


AB S-(2-Deoxyglycosyl)-O,O-di-Et phosphorodithioates, easily accessible from
 glycals, are convenient precursors for glycosylation in the presence of
 promoters such as N-iodosuccinimide or iodonium bis(2,4,6-
 trimethylpyridine) perchlorate. In a series of transformations both the
 .alpha.- and .beta.-glycosyl donors were attached stereoselectively to
 acceptor sugar mols. I, II, and III in a short reaction times.

IT 146820-38-4P 146820-39-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation)
 (prepn. and epimerization of)

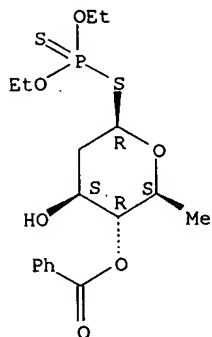
RN 146820-38-4 HCAPLUS
 CN .alpha.-L-arabino-Hexopyranose, 2,6-dideoxy-1-thio-, 4-benzoate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 146820-39-5 HCAPLUS
 CN .beta.-L-arabino-Hexopyranose, 2,6-dideoxy-1-thio-, 4-benzoate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

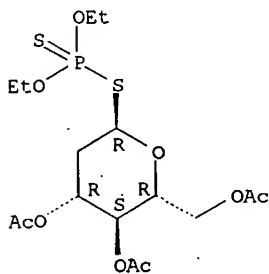
Absolute stereochemistry.



IT 146820-25-9P 146820-26-0P 146820-27-1P
 146820-28-2P 146820-29-3P 146820-30-6P
 146820-31-7P 146820-32-8P 146820-34-0P
 146820-35-1P 146820-36-2P 146820-37-3P
 146820-40-8P 146820-41-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation)
 (prepn. and stereoselective glycosidation of)

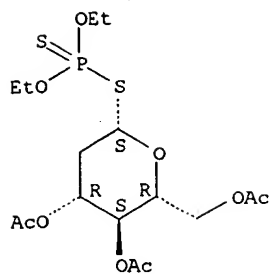
RN 146820-25-9 HCAPLUS
 CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



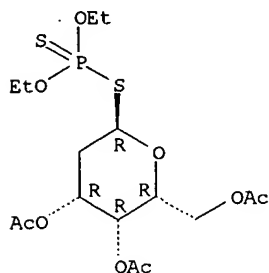
RN 146820-26-0 HCAPLUS
 CN .beta.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



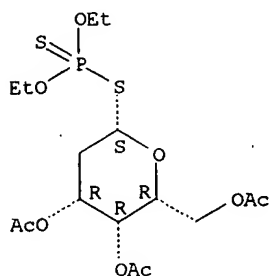
RN 146820-27-1 HCAPLUS
 CN .alpha.-D-lyxo-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



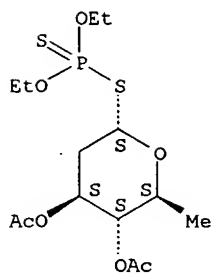
RN 146820-28-2 HCAPLUS
 CN .beta.-D-lyxo-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



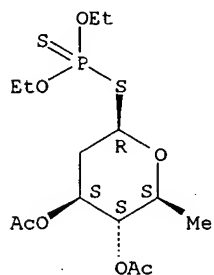
RN 146820-29-3 HCAPLUS
 CN .alpha.-L-arabino-Hexopyranose, 2,6-dideoxy-1-thio-, 3,4-diacetate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



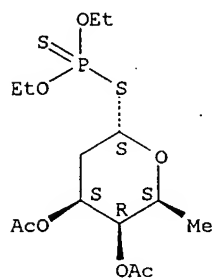
RN 146820-30-6 HCAPLUS
 CN .beta.-L-arabino-Hexopyranose, 2,6-dideoxy-1-thio-, 3,4-diacetate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



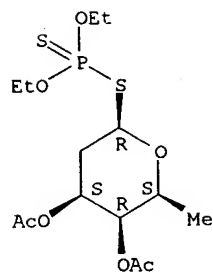
RN 146820-31-7 HCAPLUS
 CN .alpha.-L-lyxo-Hexopyranose, 2,6-dideoxy-1-thio-, 3,4-diacetate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 146820-32-8 HCAPLUS
 CN .beta.-L-lyxo-Hexopyranose, 2,6-dideoxy-1-thio-, 3,4-diacetate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

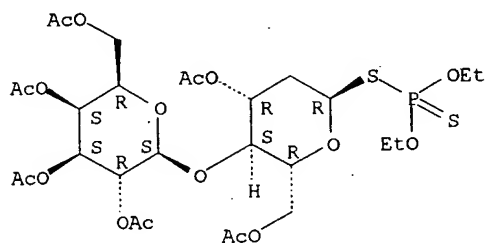
Absolute stereochemistry.



RN 146820-34-0 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-4-O-(2,3,4,6-tetra-O-acetyl-.beta.-D-galactopyranosyl)-1-thio-, 3,6-diacetate 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

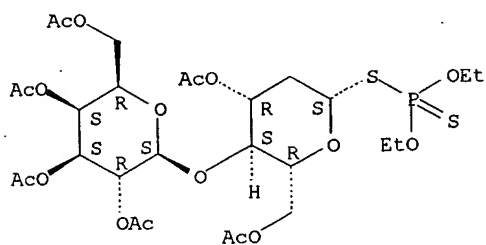
Absolute stereochemistry.



RN 146820-35-1 HCAPLUS

CN .beta.-D-arabino-Hexopyranose, 2-deoxy-4-O-(2,3,4,6-tetra-O-acetyl-.beta.-D-galactopyranosyl)-1-thio-, 3,6-diacetate 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

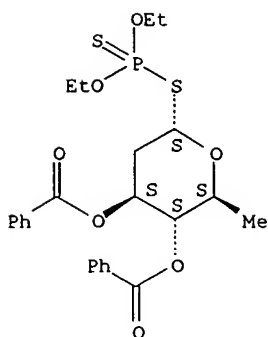
Absolute stereochemistry.



RN 146820-36-2 HCAPLUS

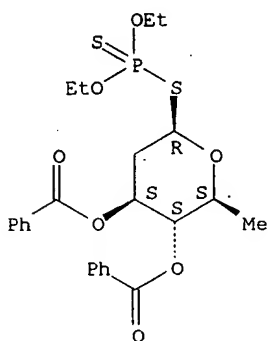
CN .alpha.-L-arabino-Hexopyranose, 2,6-dideoxy-1-thio-, 3,4-dibenzoate 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



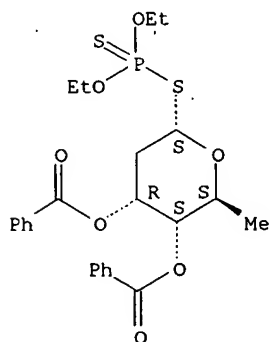
RN 146820-37-3 HCAPLUS
 CN .beta.-L-arabino-Hexopyranose, 2,6-dideoxy-1-thio-, 3,4-dibenzoate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



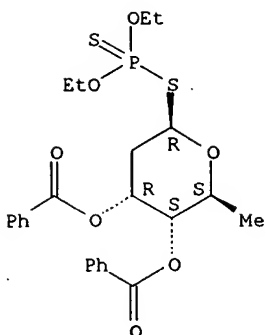
RN 146820-40-8 HCAPLUS
 CN .alpha.-L-ribo-Hexopyranose, 2,6-dideoxy-1-thio-, 3,4-dibenzoate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 146820-41-9 HCAPLUS
 CN .beta.-L-ribo-Hexopyranose, 2,6-dideoxy-1-thio-, 3,4-dibenzoate
 1-(O,O-diethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



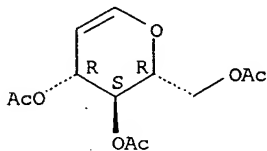
IT 2873-29-2 4098-06-0 34819-86-8
34820-21-8 51450-24-9 54621-94-2
104069-01-4

RL: RCT (Reactant)
(thiophosphorylation of)

RN 2873-29-2 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

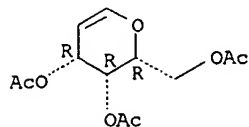
Absolute stereochemistry. Rotation (-).



RN 4098-06-0 HCAPLUS

CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-, triacetate (9CI) (CA INDEX NAME)

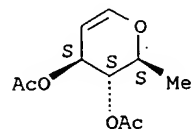
Absolute stereochemistry.



RN 34819-86-8 HCAPLUS

CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

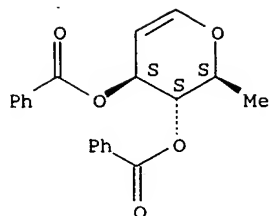


RN 34820-21-8 HCAPLUS

CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-, dibenzoate (9CI) (CA INDEX NAME)

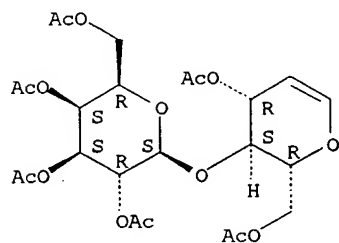
Absolute stereochemistry. Rotation (+).

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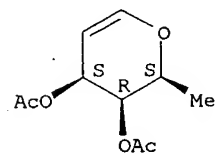
RN 51450-24-9 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-4-O-(2,3,4,6-tetra-O-acetyl-
 .beta.-D-galactopyranosyl)-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

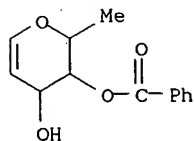


RN 54621-94-2 HCAPLUS
 CN L-arabino-Hex-5-enitol, 2,6-anhydro-1,5-dideoxy-, diacetate (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.



RN 104069-01-4 HCAPLUS.
 CN L-arabino-Hex-1-enitol, 1,5-anhydro-2,6-dideoxy-, 4-benzoate (9CI) (CA
 INDEX NAME)



=> d bib abs hitstr 153 12

L53 ANSWER 12 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 1993:169204 HCAPLUS

DN 118:169204

TI The .beta.-(phosphonooxy)alkyl radical rearrangement

AU Crich, David; Yao, Qingwei

CS Dep. Chem., Univ. Illinois, Chicago, IL, 60607-7061, USA

SO J. Am. Chem. Soc. (1993), 115(3), 1165-6

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA English

AB By analogy with the .beta.-acetoxyalkyl and allylhydroperoxy radical rearrangements the existence of the .beta.-phosphatoxyalkyl rearrangement is predicted. The prediction is shown to be correct and the first examples of this new radical rearrangement are presented. The reaction of styrene bromohydrin with di-Ph chlorophosphate provides the corresponding phosphate ester which on reaction with tributyltin hydride and AIBN in benzene at reflux suffers a .beta.-phosphatoxyalkyl radical migration giving, after chain transfer, diphenyl-.beta.-phenylethyl phosphate in moderate yield. Deuterium labeling and crossover expts. rule out the possibility of a neophyl rearrangement and intermol. mechanisms resp. Three further successful examples of the rearrangement are presented. The di-Ph phosphate derived from octadecene bromohydrin does not rearrange under the same conditions.

IT 2873-29-2P 145828-18-8P

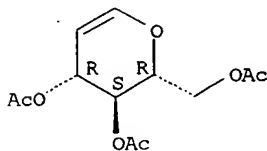
RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

RN 2873-29-2 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

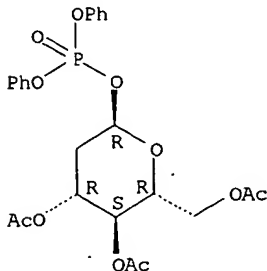
Absolute stereochemistry. Rotation (-).



RN 145828-18-8 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-, 3,4,6-triacetate 1-(diphenyl phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 153 13

L53 ANSWER 13 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 1993:102386 HCAPLUS

DN 118:102386

TI Radical rearrangement of 2-O-(diphenylphosphoryl)glycosyl bromides. A new synthesis for 2-deoxy disaccharides and 2-deoxy ribonucleosides

AU Koch, Andreas; Lamberth, Clemens; Wetterich, Frank; Giese, Bernd

CS Dep. Chem., Univ. Basel, Basel, CH-4056, Switz.

SO J. Org. Chem. (1993), 58(5), 1083-9

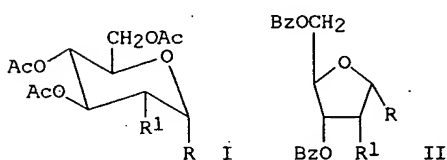
CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

OS CASREACT 118:102386

GI



AB 2-Deoxy-1-O-diphenylphosphoryl glycosides I and II [R = OP(O)(OPh)₂, R1 = H] react with nucleophiles under mild conditions giving access to 2-deoxy disaccharides and nucleosides. I and II [R = OP(O)(OPh)₂, R1 = H] were generated in situ by a radical 2-fwdarw.1 migration of the phosphate ester group in I and II [R = Br, R1 = OP(O)(OPh)₂]. This is the first observation of a rearrangement of a phosphate ester in radicals. ESR expts. and quenching of the radical at C-2 by tin hydride or tin deuteride were used to detect the intermediates and to prove their structure.

IT 145828-19-9P

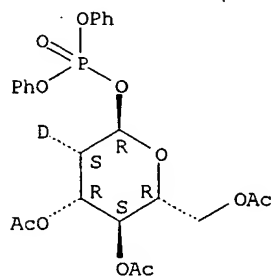
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and elimination reaction of)

RN 145828-19-9 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose-2-d, 2-deoxy-, 3,4,6-triacetate 1-(diphenyl phosphate), (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 145828-18-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and glycosidation of)

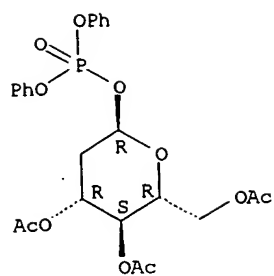
RN 145828-18-8 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-, 3,4,6-triacetate 1-(diphenyl phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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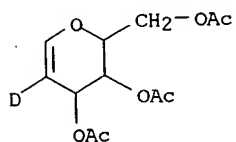


IT **145920-44-1P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

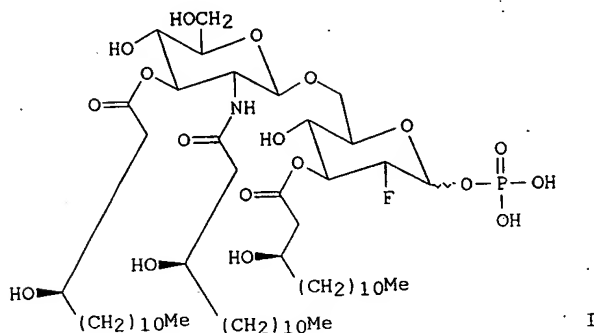
RN 145920-44-1 HCAPLUS

CN D-arabino-Hex-1-enitol-2-d, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA
INDEX NAME)



=> d bib abs hitstr 153 14

L53 ANSWER 14 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1992:255933 HCAPLUS
 DN 116:255933
 TI Synthesis of fluorinated analogs of lipid A
 AU Vyplel, Hermann; Scholz, Dieter; Loibner, Hans; Kern, Michael; Bednarik, Karl; Schaller, Hans
 CS Sandoz Forschungsinst., Vienna, A-1235, Austria
 SO Tetrahedron Lett. (1992), 33(10), 1261-4
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 GI

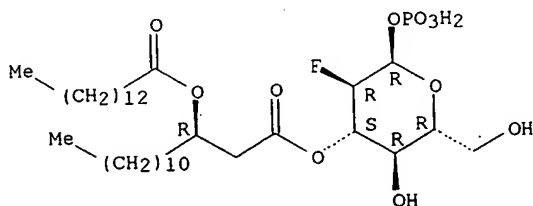


AB In order to study structure-activity relationships of lipid A derivs., a series of fluorinated analogs of lipid X was synthesized. Subsequently, these were converted enzymically into the corresponding disaccharide lipid A analogs, e.g. I, using lipid A synthase. This further demonstrates the low substrate specificity of this enzyme.

IT **132030-38-7P 132030-40-1P 141330-66-7P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and coupling of, with uridine diphosphate lipid X, enzymic)

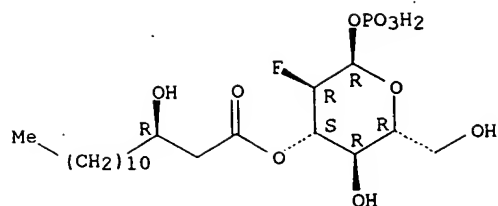
RN 132030-38-7 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2-deoxy-2-fluoro-, 1-(dihydrogen phosphate) 3-[(3R)-3-[(1-oxotetradecyl)oxy]tetradecanoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



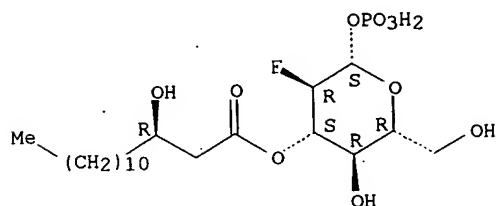
RN 132030-40-1 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2-deoxy-2-fluoro-, 1-(dihydrogen phosphate) 3-[(3R)-3-hydroxytetradecanoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

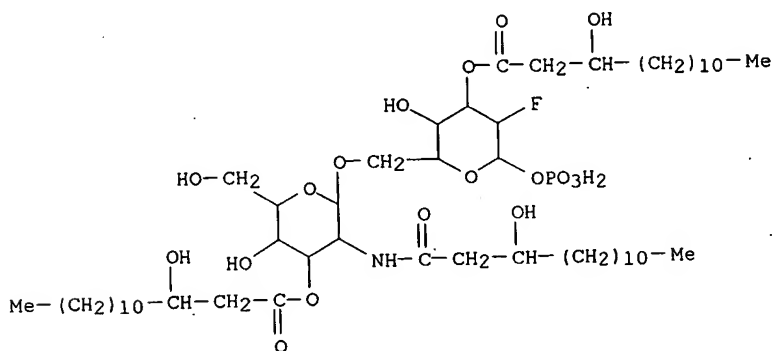


RN 141330-66-7 HCAPLUS
 CN .beta.-D-Glucopyranose, 2-deoxy-2-fluoro-, 1-(dihydrogen phosphate)
 3-(3-hydroxytetradecanoate), (R)- (9CI) (CA INDEX NAME)

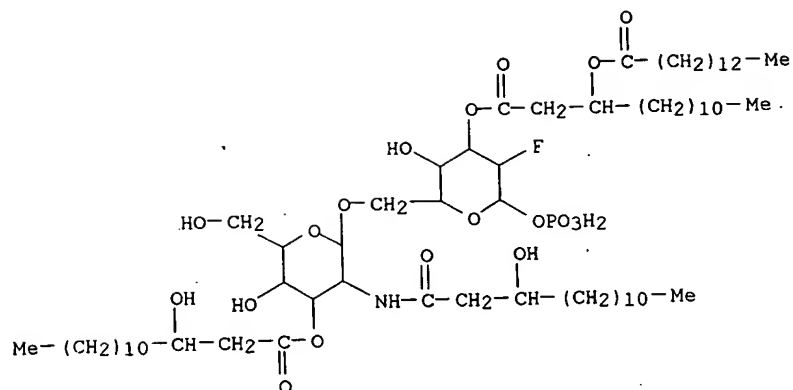
Absolute stereochemistry.



IT 132030-34-3P 132030-35-4P 141330-67-8P
 141330-68-9P 141395-61-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 132030-34-3 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2-deoxy-6-O-[2-deoxy-3-O-(3-hydroxy-1-oxotetradecyl)-2-[(3-hydroxy-1-oxotetradecyl)amino]-.beta.-D-glucopyranosyl]-2-fluoro-, 1-(dihydrogen phosphate) 3-[3-hydroxytetradecanoate], [3(R),6[2(R),3(R)]]- (9CI) (CA INDEX NAME)

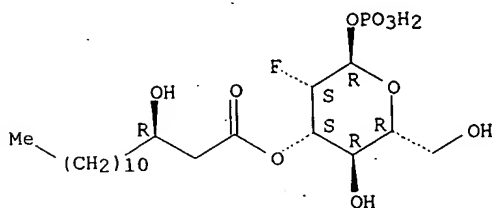


RN 132030-35-4 HCAPLUS
 CN .alpha.-D-Glucopyranose, 2-deoxy-6-O-[2-deoxy-3-O-(3-hydroxy-1-oxotetradecyl)-2-[(3-hydroxy-1-oxotetradecyl)amino]-.beta.-D-glucopyranosyl]-2-fluoro-, 1-(dihydrogen phosphate) 3-[3-[(1-oxotetradecyl)oxy]tetradecanoate], [3(R),6[2(R),3(R)]]- (9CI) (CA INDEX NAME)



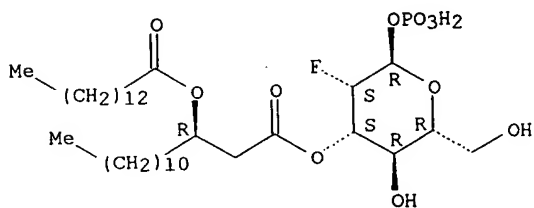
RN 141330-67-8 HCAPLUS
 CN .alpha.-D-Mannopyranose, 2-deoxy-2-fluoro-, 1-(dihydrogen phosphate)
 3-(3-hydroxytetradecanoate), (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

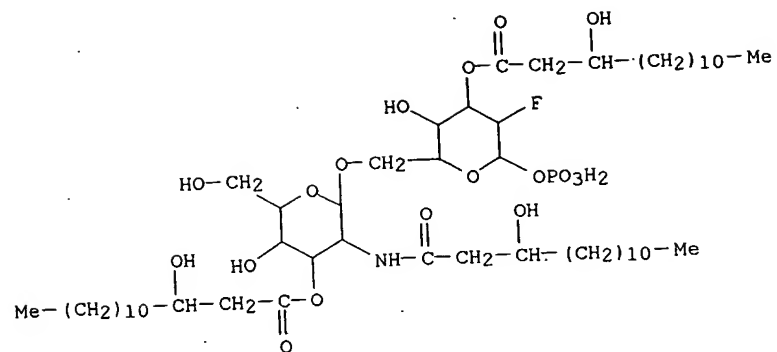


RN 141330-68-9 HCAPLUS
 CN .alpha.-D-Mannopyranose, 2-deoxy-2-fluoro-, 1-(dihydrogen phosphate)
 3-[3-[(1-oxotetradecyl)oxy]tetradecanoate], (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 141395-61-1 HCAPLUS
 CN .beta.-D-Glucopyranose, 2-deoxy-6-O-[2-deoxy-3-O-(3-hydroxy-1-oxotetradecyl)-2-[(3-hydroxy-1-oxotetradecyl)amino]-.beta.-D-glucopyranosyl]-2-fluoro-, 1-(dihydrogen phosphate) 3-(3-hydroxytetradecanoate), [3(R),6[2(R),3(R)]]- (9CI) (CA INDEX NAME)



IT 2873-29-2

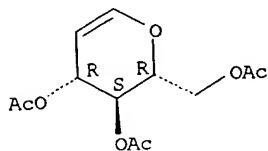
RL: RCT (Reactant)

(reaction of, with acetyl hypofluorite)

RN 2873-29-2 HCAPLUS

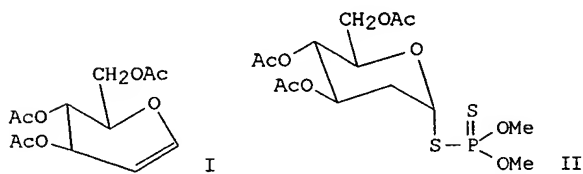
CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



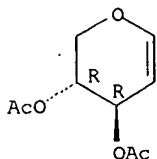
=> d bib abs hitstr 153 15

L53 ANSWER 15 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1988:631379 HCAPLUS
 DN 109:231379
 TI Stereoselective synthesis of S-(2-deoxy-.alpha.-D-glycosyl) phosphorodithioates and of their (2R)-2-deoxy-2-deuterio analogs. Novel route to C-2 deuterium labeled 2-deoxymonosaccharides
 AU Borowiecka, Joanna; Lipka, Pawel; Michalska, Maria
 CS Inst. Chem., Med. Acad., Lodz, 90-151, Pol.
 SO Tetrahedron (1988), 44(7), 2067-76
 CODEN: TETRAB; ISSN: 0040-4020
 DT Journal
 LA English
 OS CASREACT 109:231379
 GI



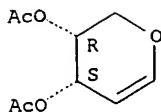
AB Addn. of O,O-dialkylphosphorodithioic acids to fully protected 1,2-unsatd. hexo- and pentopyranoses gives S-(2-deoxyglycosyl) phosphorodithioates in quant. yield and high stereoselectivity with respect to the .alpha.-isomer. For example, triacetylglucal I was treated with (MeO)2P(S)SH in C6H6 to give 90% deoxyhexopyranosyl phosphorodithioate II. The stereochem. of this reaction is cis as demonstrated by the addn. of deuterated O,O-dialkylphosphorodithioic acids to I which gives exclusively the .alpha.-dithiophosphates of (2R)-2-deoxy-2-deuterio-D-arabino-hexopyranose. This result provides an efficient and fully stereoselective method of labeling of the deoxy function in 2-deoxy monosaccharides and their glycosylic derivs.
 IT 3152-43-0 3945-17-3, 3,4-Di-O-acetyl-D-arabinal
 4098-06-0
 RL: RCT (Reactant)
 (addn. reaction of, with O,O-dialkyl phosphorodithioate)
 RN 3152-43-0 HCAPLUS
 CN D-threo-Pent-1-enitol, 1,5-anhydro-2-deoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



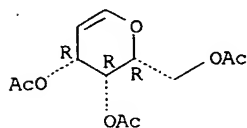
RN 3945-17-3 HCAPLUS
 CN D-erythro-Pent-1-enitol, 1,5-anhydro-2-deoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



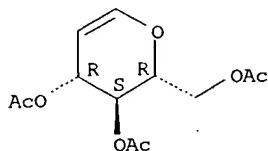
RN 4098-06-0 HCAPLUS
 CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



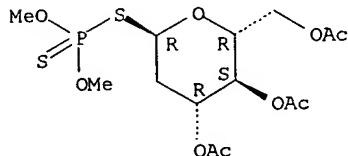
IT 2873-29-2
 RL: RCT (Reactant)
 (addn. reaction of, with O,O-dialkyl phosphorodithioates)
 RN 2873-29-2 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



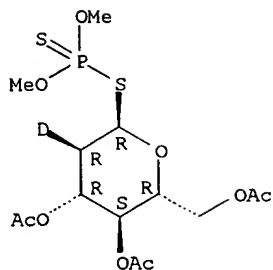
IT 69908-93-6P 117486-41-6P 117486-42-7P
 117486-44-9P 117486-45-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 69908-93-6 HCAPLUS
 CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
 1-(O,O-dimethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 117486-41-6 HCAPLUS
 CN .alpha.-D-arabino-Hexopyranose-2-d, 2-deoxy-1-thio-, 3,4,6-triacetate
 1-(O,O-dimethyl phosphorodithioate), (2R)- (9CI) (CA INDEX NAME)

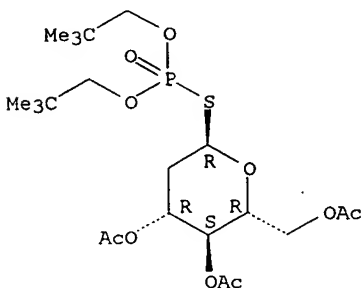
Absolute stereochemistry.



RN 117486-42-7 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
1-[bis(2,2-dimethylpropyl) phosphate] (9CI) (CA INDEX NAME)

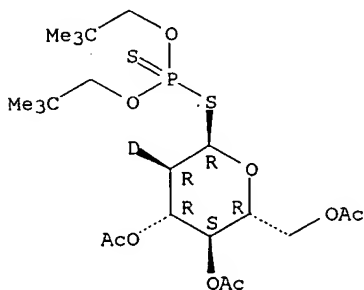
Absolute stereochemistry.



RN 117486-44-9 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose-2-d, 2-deoxy-1-thio-, 3,4,6-triacetate
1-[O,O-bis(2,2-dimethylpropyl) phosphorodithioate], (2R)- (9CI) (CA INDEX NAME)

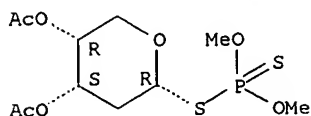
Absolute stereochemistry.



RN 117486-45-0 HCAPLUS

CN .alpha.-D-erythro-Pentopyranose, 2-deoxy-1-thio-, 3,4-diacetate
1-(O,O-dimethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

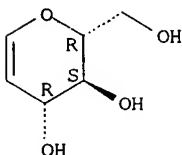


LEE 09/413,381

=> d bib abs hitstr 153 16

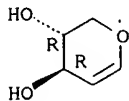
LS3 ANSWER 16 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1988:455124 HCAPLUS
 DN 109:55124
 TI Synthesis of 2-deoxy-2-iodoglycosyl phosphoramidates
 AU Lafont, Dominique; Descotes, Gerard
 CS Lab. Chim. Org., Univ. Lyon I, Villeurbanne, F-69622, Fr.
 SO Carbohydr. Res. (1987), 166(2), 195-209
 CODEN: CRBRAT; ISSN: 0008-6215
 DT Journal
 LA French
 OS CASREACT 109:55124
 AB Addn. of IN3 to acetylated, benzylated, and methoxymethylated glycals yielded 2-deoxy-2-iodoglycosyl azides and 1,2-trans configuration. Stereoselectivity of the reaction favored the manno and talo configurations starting from D-glucal and D-galactal, resp. With D-xylal derivs., the stereoselectivity depended on the nature of the substituents. The Staudinger reaction of 2-deoxy-2-iodoglycosyl azides with P(OMe)3 led to the 2-deoxy-2-iodoglycosyl phosphoramidates in high yield.
 IT **13265-84-4**
 RL: RCT (Reactant)
 (methoxymethylation of)
 RN 13265-84-4 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



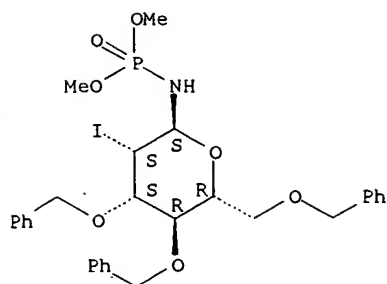
IT **496-62-8P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and benzylation of)
 RN 496-62-8 HCAPLUS
 CN D-threo-Pent-1-enitol, 1,5-anhydro-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **115220-98-9P 115220-99-0P 115221-00-6P**
115221-01-7P 115221-02-8P 115221-03-9P
115221-08-4P 115221-09-5P 115221-10-8P
115221-11-9P 115221-12-0P 115221-13-1P
 RL: **SPN (Synthetic preparation); PREP (Preparation)**
 (prepn. and phosphorylation of)
 RN 115220-98-9 HCAPLUS
 CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4,6-tris-O-(phenylmethyl)-.alpha.-D-mannopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

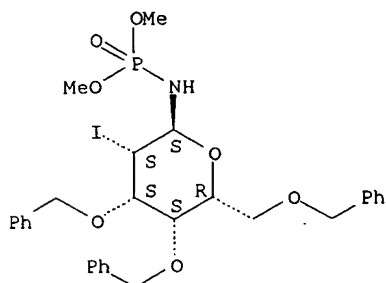
Absolute stereochemistry.



RN 115220-99-0 HCAPLUS

CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4,6-tris-O-(phenylmethyl)-.alpha.-D-talopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

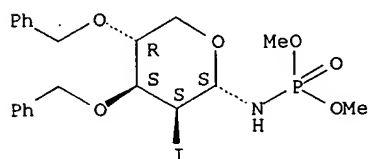
Absolute stereochemistry.



RN 115221-00-6 HCAPLUS

CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4-bis-O-(phenylmethyl)-.alpha.-D-lyxopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

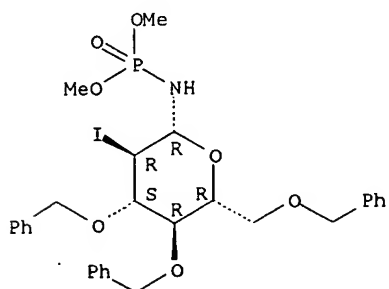
Absolute stereochemistry.



RN 115221-01-7 HCAPLUS

CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4,6-tris-O-(phenylmethyl)-.beta.-D-glucopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

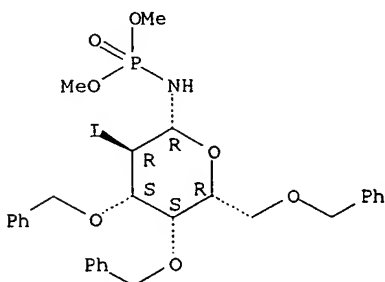
Absolute stereochemistry.



RN 115221-02-8 HCAPLUS

CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4,6-tris-O-(phenylmethyl)-.beta.-D-galactopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

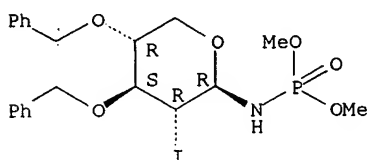
Absolute stereochemistry.



RN 115221-03-9 HCAPLUS

CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4-bis-O-(phenylmethyl)-.beta.-D-xylopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

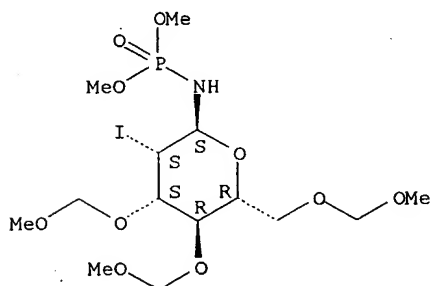
Absolute stereochemistry.



RN 115221-08-4 HCAPLUS

CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4,6-tris-O-(methoxymethyl)-.alpha.-D-mannopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

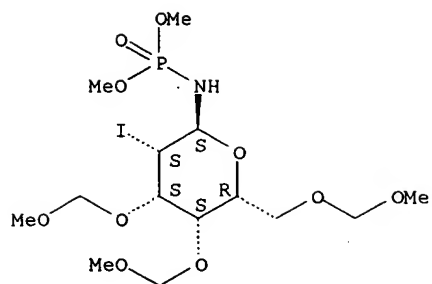
Absolute stereochemistry.



RN 115221-09-5 HCAPLUS

CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4,6-tris-O-(methoxymethyl)-.alpha.-D-talopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

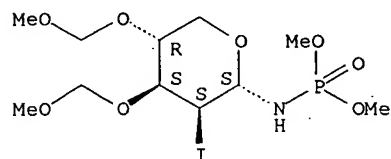
Absolute stereochemistry.



RN 115221-10-8 HCAPLUS

CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4-bis-O-(methoxymethyl)-.alpha.-D-lyxopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

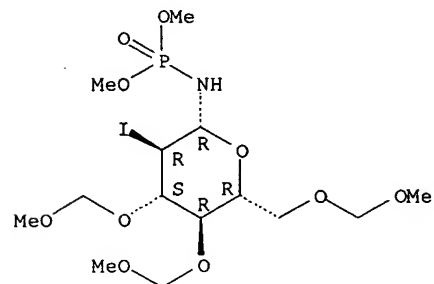
Absolute stereochemistry.



RN 115221-11-9 HCAPLUS

CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4,6-tris-O-(methoxymethyl)-.beta.-D-glucopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

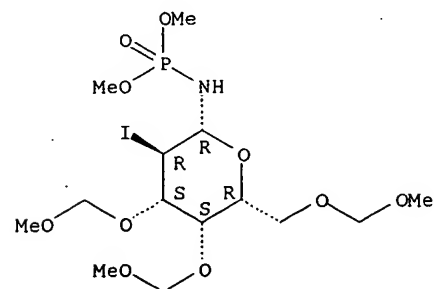
Absolute stereochemistry.



RN 115221-12-0 HCAPLUS

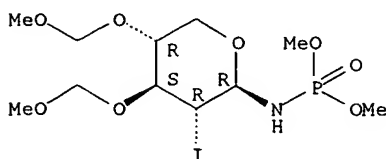
CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4,6-tris-O-(methoxymethyl)-.beta.-D-galactopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 115221-13-1 HCAPLUS
 CN Phosphoramidic acid, [2-deoxy-2-iodo-3,4-bis-O-(methoxymethyl)-.beta.-D-xylopyranosyl]-, dimethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

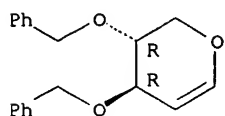


IT 115220-82-1P 115220-83-2P 115220-84-3P
 115268-25-2P

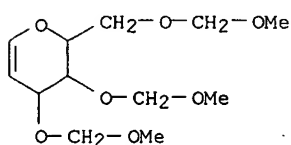
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and reaction of, with iodine azide, stereochem. of)

RN 115220-82-1 HCAPLUS
 CN D-threo-Pent-1-enitol, 1,5-anhydro-2-deoxy-3,4-bis-O-(phenylmethyl)- (9CI)
 (CA INDEX NAME)

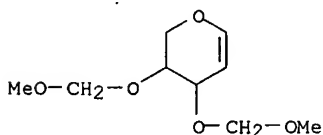
Absolute stereochemistry.



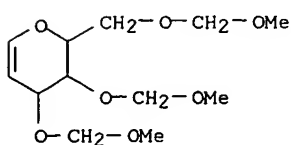
RN 115220-83-2 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,4,6-tris-O-(methoxymethyl)-
 (9CI) (CA INDEX NAME)



RN 115220-84-3 HCAPLUS
 CN D-threo-Pent-1-enitol, 1,5-anhydro-2-deoxy-3,4-bis-O-(methoxymethyl)-
 (9CI) (CA INDEX NAME)



RN 115268-25-2 HCAPLUS
 CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-1,3,4-tris-O-(methoxymethyl)-
 (9CI) (CA INDEX NAME)



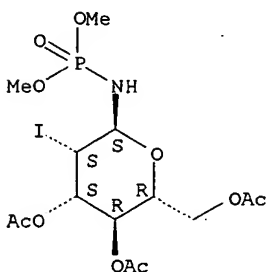
IT 115220-85-4P 115220-86-5P 115220-87-6P
115220-88-7P 115220-89-8P 115220-90-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 115220-85-4 HCAPLUS

CN Phosphoramidic acid, (3,4,6-tri-O-acetyl-2-deoxy-2-iodo-.alpha.-D-mannopyranosyl)-, dimethyl ester (9CI) (CA INDEX NAME)

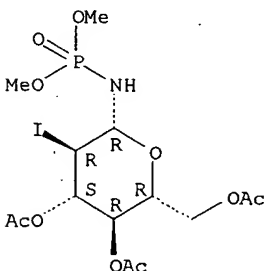
Absolute stereochemistry.



RN 115220-86-5 HCAPLUS

CN Phosphoramidic acid, (3,4,6-tri-O-acetyl-2-deoxy-2-iodo-.beta.-D-glucopyranosyl)-, dimethyl ester (9CI) (CA INDEX NAME)

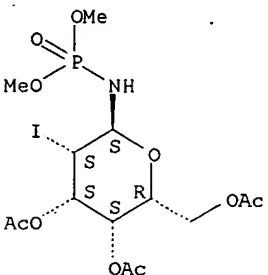
Absolute stereochemistry.



RN 115220-87-6 HCAPLUS

CN Phosphoramidic acid, (3,4,6-tri-O-acetyl-2-deoxy-2-iodo-.alpha.-D-talopyranosyl)-, dimethyl ester (9CI) (CA INDEX NAME)

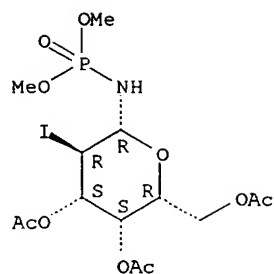
Absolute stereochemistry.



RN 115220-88-7 HCAPLUS

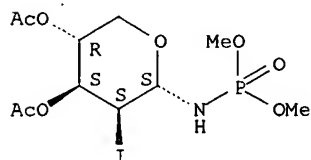
CN Phosphoramidic acid, (3,4,6-tri-O-acetyl-2-deoxy-2-iodo-.beta.-D-galactopyranosyl)-, dimethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



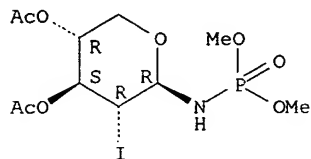
RN 115220-89-8 HCAPLUS
CN Phosphoramidic acid, (3,4-di-O-acetyl-2-deoxy-2-iodo-α-D-lyxopyranosyl)-, dimethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 115220-90-1 HCAPLUS
CN Phosphoramidic acid, (3,4-di-O-acetyl-2-deoxy-2-iodo-β-D-xylopyranosyl)-, dimethyl ester (9CI) (CA INDEX NAME)

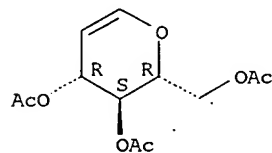
Absolute stereochemistry.



IT 2873-29-2 3152-43-0 4098-06-0
55628-54-1 80040-79-5
RL: RCT (Reactant)
(reaction of, with iodine azide, stereochem. of)

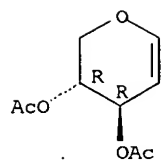
RN 2873-29-2 HCAPLUS
CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



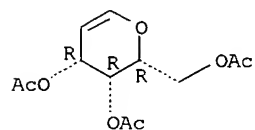
RN 3152-43-0 HCAPLUS
CN D-threo-Pent-1-enitol, 1,5-anhydro-2-deoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



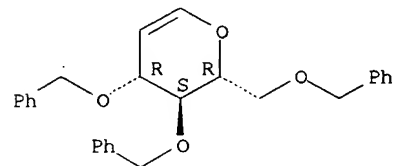
RN 4098-06-0 HCAPLUS
CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



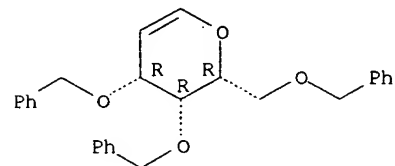
RN 55628-54-1 HCAPLUS
CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,4,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



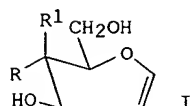
RN 80040-79-5 HCAPLUS
CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-1,3,4-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



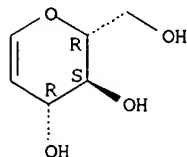
=> d bib abs hitstr 153 17

L53 ANSWER 17 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1988:22160 HCAPLUS
 DN 108:22160
 TI Glycosylimidates. Part 28. Direct 3,6-di-O-protection of glucal and galactal
 AU Kinzy, Willy; Schmidt, Richard R.
 CS Fak. Chem., Univ. Konstanz, Konstanz, D-7750, Fed. Rep. Ger.
 SO Tetrahedron Lett. (1987), 28(18), 1981-4
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 OS CASREACT 108:22160
 GI



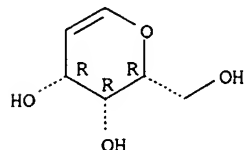
AB Me3CSiMe2Cl is a useful reagent for direct 3,6-di-O-protection of D-glucal (I; R = OH, R1 = H) and D-galactal (I; R = H, R1 = OH). The unprotected 4-OH group is still accessible to other protective groups, providing, after selective 3,6-O-desilylation, 4-O-protected derivs. 2-Azido group introduction does not even require 4-O-protection thus affording valuable 2-azido-2-deoxy-gluco- and -galactopyranosyl donors for glycoconjugate synthesis by short and efficient routes.
 IT 13265-84-4, D-Glucal 21193-75-9, D-Galactal
 RL: RCT (Reactant)
 (3,6-di-O-protection of, with tert-butyldimethylsilyl chloride)
 RN 13265-84-4 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 21193-75-9 HCAPLUS
 CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



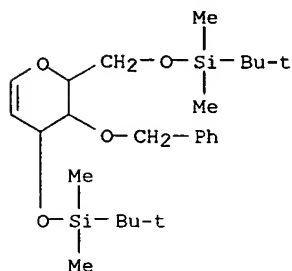
IT 111830-58-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and azidation of)

SEARCHED BY SUSAN HANLEY 305-4053

Page 68

RN 111830-58-1 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-4-O-(phenylmethyl)- (9CI) (CA INDEX NAME)



IT 111830-54-7P 111830-55-8P 111830-56-9P .

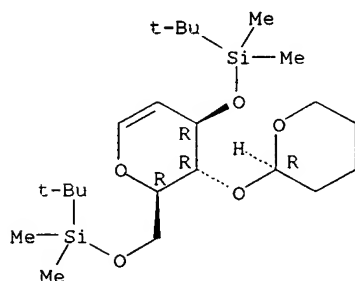
111830-57-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and desilylation of)

RN 111830-54-7 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-4-O-(tetrahydro-2H-pyran-2-yl)-, (R)- (9CI)
(CA INDEX NAME)

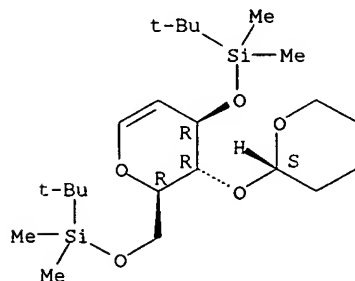
Absolute stereochemistry.



RN 111830-55-8 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-4-O-(tetrahydro-2H-pyran-2-yl)-, (S)- (9CI)
(CA INDEX NAME)

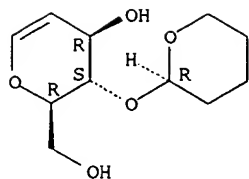
Absolute stereochemistry.



RN 111830-56-9 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-4-O-(tetrahydro-2H-pyran-2-yl)-, (R)- (9CI) (CA INDEX NAME)

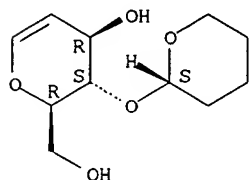
Absolute stereochemistry.



RN 111830-57-0 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-4-O-(tetrahydro-2H-pyran-2-yl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



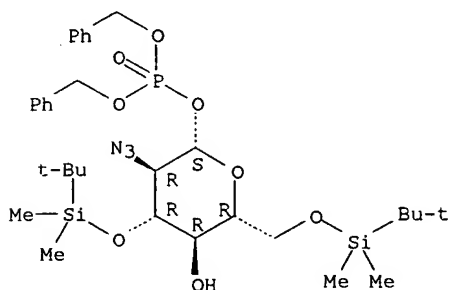
IT 111830-67-2P

RL: **SPN (Synthetic preparation)**; PREP (Preparation)
(prepn. and glycosyl donor properties of)

RN 111830-67-2 HCAPLUS

CN .beta.-D-Glucopyranose, 2-azido-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



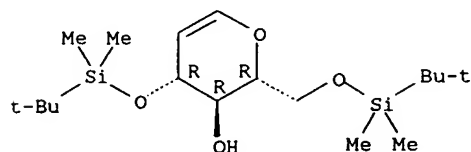
IT 111830-53-6P 111902-03-5P 111902-04-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reactions of)

RN 111830-53-6 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

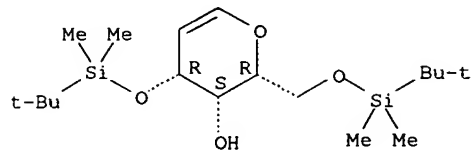
Absolute stereochemistry.



RN 111902-03-5 HCAPLUS

CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-1,4-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

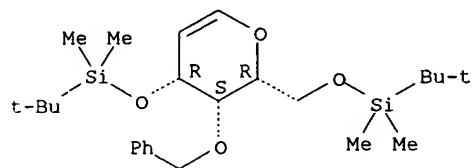
Absolute stereochemistry.



RN 111902-04-6 HCAPLUS

CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-1,4-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 153 18

L53 ANSWER 18 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1984:423888 HCAPLUS
 DN 101:23888
 TI Phospholipid derivatives and their pharmaceutical compositions
 IN Tsutomu, Teraji; Eishiro, Todo; Norihiko, Shimazaki; Teruo, Oku; Takayuki, Namiki
 PA Fujisawa Pharmaceutical Co., Ltd. , Japan
 SO Eur. Pat. Appl., 51 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 100499	A2	19840215	EP 1983-107236	19830723
	EP 100499	A3	19850612		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	US 4585762	A	19860429	US 1983-513451	19830713
	DK 8303473	A	19840131	DK 1983-3473	19830728
	JP 59042394	A2	19840308	JP 1983-139709	19830729
	ES 524610	A1	19841201	ES 1983-524610	19830729
	ES 530669	A1	19850501	ES 1984-530669	19840315
	ES 530668	A1	19850701	ES 1984-530668	19840315

PRAI GB 1982-22020 19820730

AB RCH2(CHR1)nCH2OP(O)R2R3 [R = alkyl, alkoxy, alkylthio, alkylsulfonyl; R1 = H, OH, alkoxy, alkanoyloxy, alkylcarbamoyloxy; n = 0, 1; R2 = (un)protected OH; R3 = alkoxy, alacyclic oxy group with .gtoreq.2 (un)protected OH groups], or their pharmaceutically acceptable salts, were prep'd. as antitumor agents. Thus, DL-2-methoxyoctadecyl 2-(1,3,4,5,6-penta-O-acetyl-DL-myo-inosityl) Ph phosphate was obtained from Ag 2-(1,3,4,5,6-penta-O-acetyl-DL-myo-inosityl) Ph phosphate and DL-2-methoxyoctadecyl iodide. The product was hydrogenolized, then treated with ion-exchange resin (Dowex 50) to give DL-2-methoxyoctadecyl 2-(DL-myo-inosityl) phosphate (I). I was a more effective antitumor agent against fibrosarcoma Meth A in female mice than was 1-O-octadecyl-2-O-methylglycerol-3-phosphorylcholine.

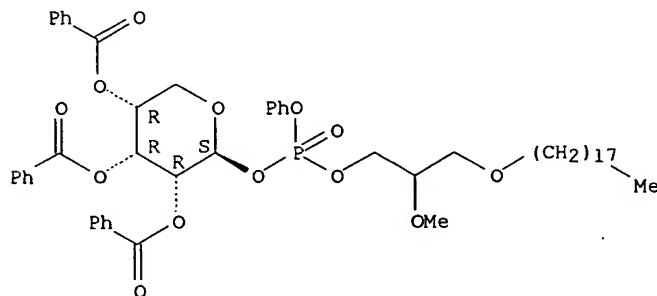
IT 90339-63-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and hydrogenolysis of)

RN 90339-63-2 HCAPLUS

CN .beta.-D-Ribopyranose, 2,3,4-tribenzoate 1-[2-methoxy-3-(octadecyloxy)propyl phenyl phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



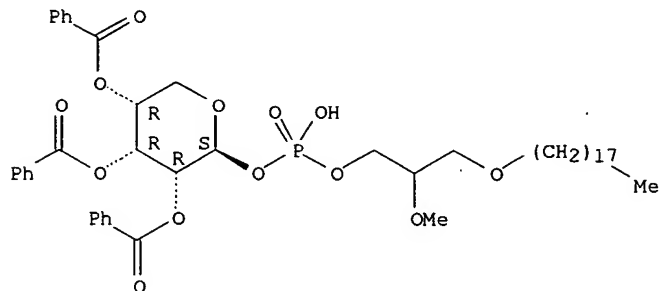
IT 90339-64-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and ion-exchange reaction of)

RN 90339-64-3 HCAPLUS

CN .beta.-D-Ribopyranose, 2,3,4-tribenzoate 1-[2-methoxy-3-(octadecyloxy)propyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



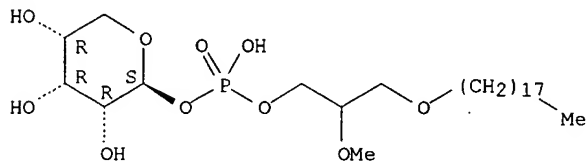
IT 90339-65-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 90339-65-4 HCAPLUS

CN .beta.-D-Ribopyranose, 1-[2-methoxy-3-(octadecyloxy)propyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 110-87-2

RL: RCT (Reactant)
(reaction of, with tetraacetyl(trifluoromethanesulfonyl)myoinositol in presence of toluenesulfonic acid)

RN 110-87-2 HCAPLUS

CN 2H-Pyran, 3,4-dihydro- (8CI, 9CI) (CA INDEX NAME)



=> d bib abs hitstr 153 19

L53 ANSWER 19 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 1983:612839 HCAPLUS

DN 99:212839

TI A novel stereoselective route to alkyl 2-deoxy-.beta.-D-glucosides via S-(2-deoxy-.alpha.-glucosyl) phosphorodithioates

AU Michalska, Maria; Borowiecka, Joanna

CS Fac. Pharm., Med. Acad., Lodz, 90145, Pol.

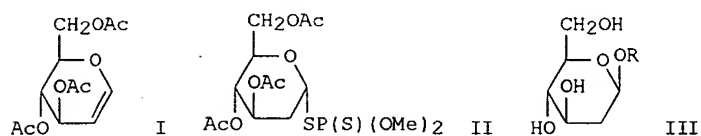
SO J. Carbohydr. Chem. (1983), 2(1), 99-103

CODEN: JCACDM; ISSN: 0732-8303

DT Journal

LA English

GI



AB Adding (MeO)2P(S)SH to glucal I stereoselectivity gave .alpha.-phosphorodithioate II, which on treatment with ROH (R = Me, Et, Pr, Me2CH, Me2CHCH2) in the presence of a base gave, with full anomerization, .beta.-D-deoxyglucopyranosides III.

IT 2873-29-2

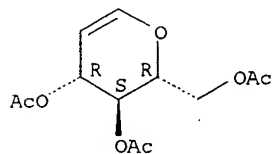
RL: RCT (Reactant)

(addn. reaction of, with di-Me phosphorodithioate, stereoselective)

RN 2873-29-2 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 69908-93-6P

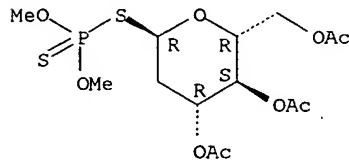
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and alcoholysis of)

RN 69908-93-6 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate 1-(O,O-dimethyl phosphorodithioate) (9CI) (CA INDEX NAME)

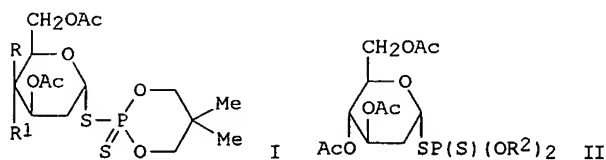
Absolute stereochemistry.



LEE 09/413,381

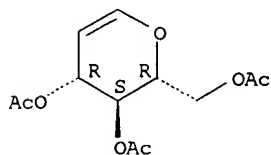
=> d bib abs hitstr 153 20

L53 ANSWER 20 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1979:204379 HCAPLUS
 DN 90:204379
 TI Synthesis of S-(2-deoxy-.alpha.-D-glycosyl)phosphorodithioates by addition of dialkyl hydrogenphosphorodithioates to glycols: a potential route to 2-deoxy-1-thio-.alpha.-D sugars
 AU Borowiecka, Joanna; Michalska, Maria
 CS Fac. Pharm., Med. Acad., Lodz, Pol.
 SO Carbohydr. Res. (1979), 68(1), C8-C10
 CODEN: CRBRAT; ISSN: 0008-6215
 DT Journal
 LA English
 GI



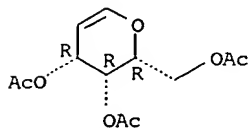
AB Reaction of 3,4,6-tri-O-acetyl-D-glucal and -D-galactal with 2-mercapto-5,5-dimethyl-2-thioxo-1,3,2-dioxaphosphorinane in C6H6 at ambient temp. gave >60% glycosyl phosphorodithioates I (R = H, R1 = OAc; R = OAc, R1 = H). Phosphorodithioates II (R2 = Me, Pr, Bu) were similarly prepd.
 IT 2873-29-2
 RL: RCT (Reactant)
 (addn. reaction of, with dialkyl hydrogen phosphorodithioic acid)
 RN 2873-29-2 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 4098-06-0
 RL: RCT (Reactant)
 (addn. reaction of, with mercaptodimethylthioxodioxaphosphorinane)
 RN 4098-06-0 HCAPLUS
 CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



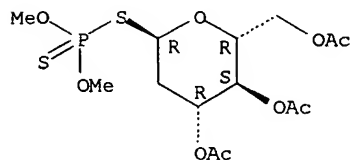
IT 69908-93-6P 69908-94-7P 70341-63-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 69908-93-6 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
1-(O,O-dimethyl phosphorodithioate) (9CI) (CA INDEX NAME)

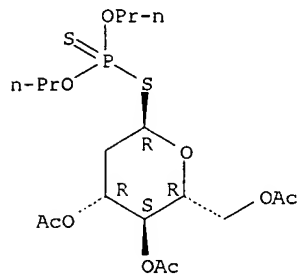
Absolute stereochemistry.



RN 69908-94-7 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
1-(O,O-dipropyl phosphorodithioate) (9CI) (CA INDEX NAME)

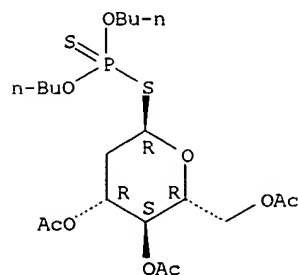
Absolute stereochemistry.



RN 70341-63-8 HCAPLUS

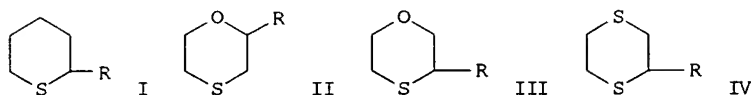
CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
1-(O,O-dibutyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 153 21

L53 ANSWER 21 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1976:494293 HCAPLUS
 DN 85:94293
 TI Synthesis of some derivatives of tetrahydrothiopyran, 1,4-dithiane, and 1,4-oxathiane to find substances with pesticide action
 AU Blagoveshchenskii, V. S.; Kazimirschik, I. V.; Yakovleva, O. P.; Zefirov, N. S.; Denisenko, V. K.
 CS USSR
 SO Probl. S-kh. Nauki Mosk. Univ. (1975), 260-8. Editor(s): Dobrovol'skii, G. V. Publisher: Mosk. Univ., Moscow, USSR.
 CODEN: 32WJAO
 DT Conference
 LA Russian
 GI

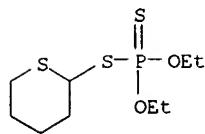


AB Tetrahydrothiopyrans [I, R = MeO, BuO, PrS, BuS, EtMe2CS; PhS, PhCH2S, (MeO)2P(S)S, (EtO)2P(S)S] were prepd. by treatment of dihydropyran with RH. 1,4-Oxathianes [II, R = Me3CO, PrS, Me3CS, Me2EtCS, PhCH2S, PhS, (MeO)2P(S)S, (EtO)2P(S)S] were obtained by treatment of dihydrooxathiane with RH. 1,4-Oxathianes (III, R = MeO, PrS, BuS, Me2CEtS, PhS) were obtained by treatment of the corresponding chlorooxathiane with RH. Addnl. obtained were 1,4-dithianes (IV, R = BuO, BuS, MeO). I-IV were useful in control of mosquitoes.

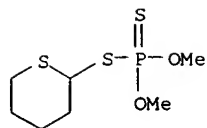
IT **13042-80-3**
 RL: RCT (Reactant)
 (addn. of alcs., mercaptans, and dialkylphosphorodithioates to)
 RN 13042-80-3 HCAPLUS
 CN 2H-Thiopyran, 3,4-dihydro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IT **27868-65-1P 27868-66-2P 27920-62-3P**
 RL: **SPN (Synthetic preparation)**; PREP (Preparation)
 (prepn. and control of mosquitoes by)
 RN 27868-65-1 HCAPLUS
 CN Phosphorodithioic acid, O,O-diethyl S-(tetrahydro-2H-thiopyran-2-yl) ester (8CI, 9CI) (CA INDEX NAME)

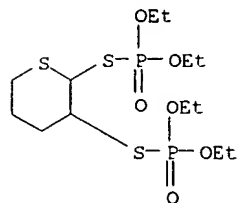


RN 27868-66-2 HCAPLUS
 CN Phosphorodithioic acid, O,O-dimethyl S-(tetrahydro-2H-thiopyran-2-yl) ester (8CI, 9CI) (CA INDEX NAME)



RN 27920-62-3 HCAPLUS

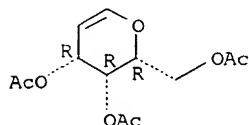
CN Phosphorothioic acid, S,S'-(tetrahydro-2H-thiopyran-2,3-diyl)
O,O,O',O'-tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



=> d bib abs hitstr 153 22

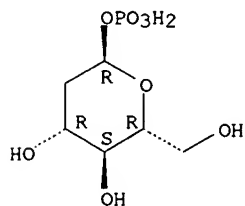
L53 ANSWER 22 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1974:404153 HCAPLUS
 DN 81:4153
 TI Synthesis of 2-deoxy-.alpha.-D-glucopyranosyl and 2-deoxy-.alpha.-D-galactopyranosyl phosphates
 AU Kucar, S.; Zamocky, J.; Bauer, S.
 CS Inst. Chem., Slovak Acad. Sci., Bratislava, Czech.
 SO Chem. Zvesti (1974), 28(1), 115-19
 CODEN: CHZVAN
 DT Journal
 LA English
 GI For diagram(s), see printed CA Issue.
 AB The title compds. were prepd. by phosphorylation of I and II, resp., with cryst. H3PO4 in THF, followed by treatment with N LiOH in THF at 0.degree. for 16 hr and neutralization.
 IT **4098-06-0**
 RL: RCT (Reactant)
 (acetylation of)
 RN 4098-06-0 HCAPLUS
 CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **42400-47-5P 42400-48-6P 52522-48-2P**
 RL: **SPN (Synthetic preparation)**; PREP (Preparation)
 (prepn. of)
 RN 42400-47-5 HCAPLUS
 CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-, 1-(dihydrogen phosphate),
 diammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



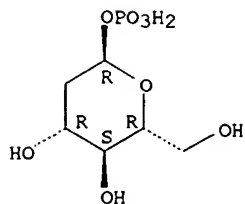
● 2 NH3

RN 42400-48-6 HCAPLUS
 CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-, 1-(dihydrogen phosphate), compd.
 with cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 48150-47-6
 CMF C6 H13 O8 P
 CDES 5:A-D-ARABINO

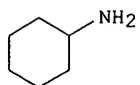
Absolute stereochemistry.



CM 2

CRN 108-91-8

CMF C6 H13 N



RN 52522-48-2 HCAPLUS

CN .alpha.-D-lyxo-Hexopyranose, 2-deoxy-, 1-(dihydrogen phosphate), compd. with cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

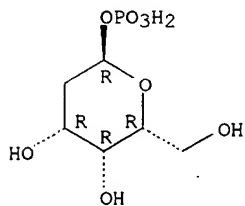
CM 1

CRN 52522-47-1

CMF C6 H13 O8 P

CDES 5:A-D-LYXO

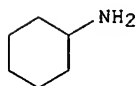
Absolute stereochemistry.



CM 2

CRN 108-91-8

CMF C6 H13 N

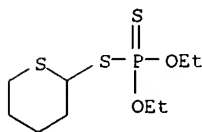


=> d bib abs hitstr 153 23

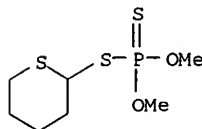
L53 ANSWER 23 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1970:414632 HCAPLUS
 DN 73:14632
 TI Addition reactions occurring at the double bond of .DELTA.2-dihydrothiopyran
 AU Blagoveshchenskii, V. S.; Kazimirchik, I. V.; Ivanova, M. I.; Zefirov, N. S.
 CS Mosk. Gos. Univ. im. Lomonosova, Moscow, USSR
 SO Zh. Org. Khim. (1970), 6(4), 877-9
 CODEN: ZORKAE
 DT Journal
 LA Russian
 AB Condensation of .DELTA.2-dihydrothiopyran (I) with alcs. in Et₂O soln. contg. HCl gave 2(or 3)-R-substituted-tetrahydropyrans (II) (R is OMe, OBU). Similarly, treating I with BuSH gave II (R = SBU). I with dialkyl dithiophosphates gave II [R is SP(:S)(OMe)₂ or SP(:S)(OEt)₂]. The reactions of I with tetra-Et bistiophosphate gave 2-R,3-R₁-disubstituted-tetrahydropyran (III) [R and R₁ are SP(:O)(OEt)₂]. Similarly, I reacted with Hg(OAc)₂ in MeOH to give III (R = OMe, R₁ = HgOAc), which was converted into III (R = OMe, R₁ = HgCl). II and III are potential pesticides.
 IT 13042-80-3
 RL: RCT (Reactant)
 (addn. reaction of, with alcs.)
 RN 13042-80-3 HCAPLUS
 CN 2H-Thiopyran, 3,4-dihydro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IT 27868-65-1P 27868-66-2P 27920-62-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 27868-65-1 HCAPLUS
 CN Phosphorodithioic acid, O,O-diethyl S-(tetrahydro-2H-thiopyran-2-yl) ester (8CI, 9CI) (CA INDEX NAME)

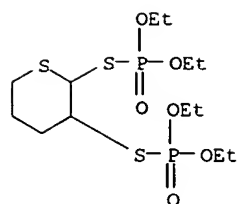


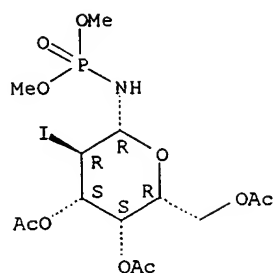
RN 27868-66-2 HCAPLUS
 CN Phosphorodithioic acid, O,O-dimethyl S-(tetrahydro-2H-thiopyran-2-yl) ester (8CI, 9CI) (CA INDEX NAME)



RN 27920-62-3 HCAPLUS
 CN Phosphorothioic acid, S,S'-(tetrahydro-2H-thiopyran-2,3-diyl) O,O,O',O'-tetraethyl ester (8CI, 9CI) (CA INDEX NAME)

SEARCHED BY SUSAN HANLEY 305-4053

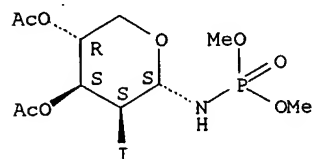




RN 115220-89-8 HCAPLUS

CN Phosphoramidic acid, (3,4-di-O-acetyl-2-deoxy-2-iodo-α-D-xylopyranosyl)-, dimethyl ester (9CI) (CA INDEX NAME)

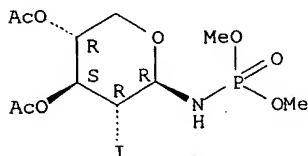
Absolute stereochemistry.



RN 115220-90-1 HCAPLUS

CN Phosphoramidic acid, (3,4-di-O-acetyl-2-deoxy-2-iodo-β-D-xylopyranosyl)-, dimethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 2873-29-2 3152-43-0 4098-06-0

55628-54-1 80040-79-5

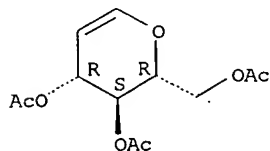
RL: RCT (Reactant)

(reaction of, with iodine azide, stereochem. of)

RN 2873-29-2 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

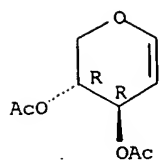
Absolute stereochemistry. Rotation (-).



RN 3152-43-0 HCAPLUS

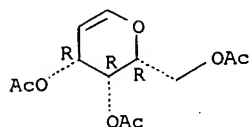
CN D-threo-Pent-1-enitol, 1,5-anhydro-2-deoxy-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



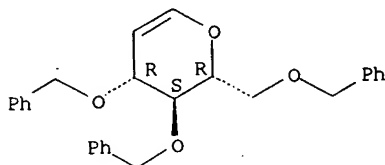
RN 4098-06-0 HCAPLUS
CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



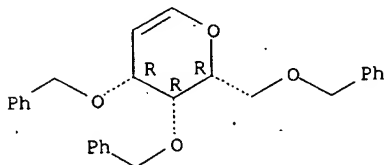
RN 55628-54-1 HCAPLUS
CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,4,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



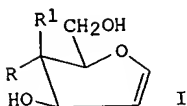
RN 80040-79-5 HCAPLUS
CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-1,3,4-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



=> d bib abs hitstr 153 17

L53 ANSWER 17 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1988:22160 HCAPLUS
 DN 108:22160
 TI Glycosylimidates. Part 28. Direct 3,6-di-O-protection of glucal and galactal
 AU Kinzy, Willy; Schmidt, Richard R.
 CS Fak. Chem., Univ. Konstanz, Konstanz, D-7750, Fed. Rep. Ger.
 SO Tetrahedron Lett. (1987), 28(18), 1981-4
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 OS CASREACT 108:22160
 GI

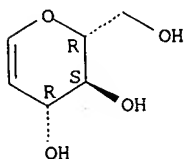


AB Me3CSiMe2Cl is a useful reagent for direct 3,6-di-O-protection of D-glucal (I; R = OH, R1 = H) and D-galactal (I; R = H, R1 = OH). The unprotected 4-OH group is still accessible to other protective groups, providing, after selective 3,6-O-desilylation, 4-O-protected derivs. 2-Azido group introduction does not even require 4-O-protection thus affording valuable 2-azido-2-deoxy-gluco- and -galactopyranosyl donors for glycoconjugate synthesis by short and efficient routes.

IT 13265-84-4, D-Glucal 21193-75-9, D-Galactal
 RL: RCT (Reactant)
 (3,6-di-O-protection of, with tert-butyldimethylsilyl chloride)

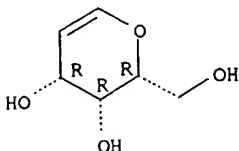
RN 13265-84-4 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 21193-75-9 HCAPLUS
 CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy- (9CI) (CA INDEX NAME)

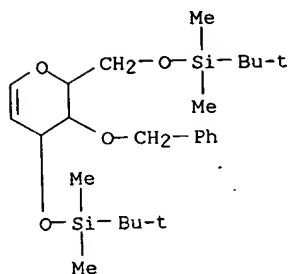
Absolute stereochemistry.



IT 111830-58-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and azidation of)

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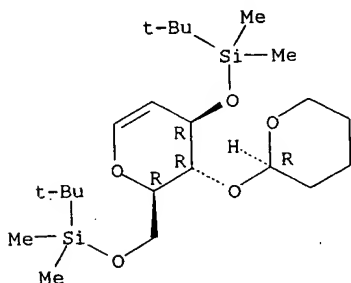
RN 111830-58-1 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-4-O-(phenylmethyl)- (9CI) (CA INDEX NAME)



IT 111830-54-7P 111830-55-8P 111830-56-9P
 111830-57-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and desilylation of)

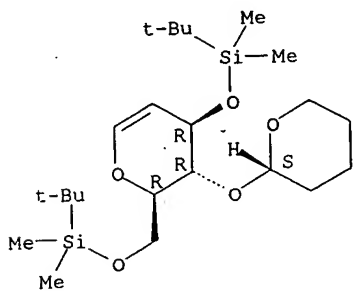
RN 111830-54-7 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-4-O-(tetrahydro-2H-pyran-2-yl)-, (R)- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



RN 111830-55-8 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-4-O-(tetrahydro-2H-pyran-2-yl)-, (S)- (9CI)
 (CA INDEX NAME)

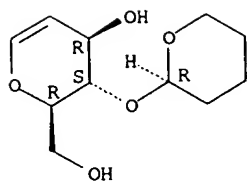
Absolute stereochemistry.



RN 111830-56-9 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-4-O-(tetrahydro-2H-pyran-2-yl)-, (R)- (9CI) (CA INDEX NAME)

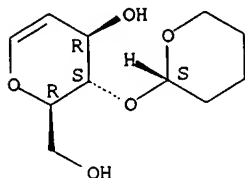
Absolute stereochemistry.

SEARCHED BY SUSAN HANLEY 305-4053



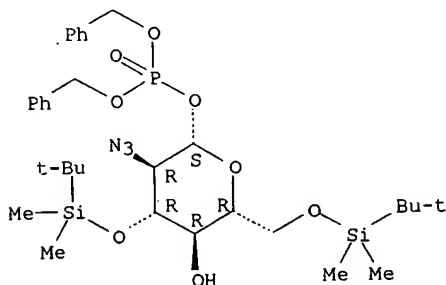
RN 111830-57-0 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-4-O-(tetrahydro-2H-pyran-2-yl)-
 , (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



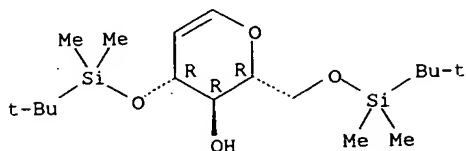
IT 111830-67-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and glycosyl donor properties of)
 RN 111830-67-2 HCAPLUS
 CN .beta.-D-Glucopyranose, 2-azido-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 1-[bis(phenylmethyl) phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 111830-53-6P 111902-03-5P 111902-04-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and reactions of)
 RN 111830-53-6 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-3,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

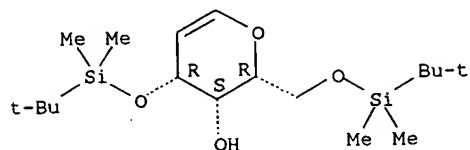
Absolute stereochemistry.



RN 111902-03-5 HCAPLUS

CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-1,4-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

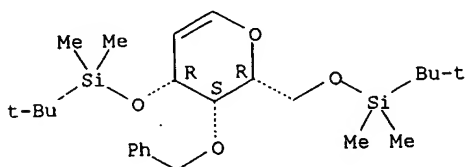
Absolute stereochemistry.



RN 111902-04-6 HCAPLUS

CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-1,4-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 153 18

L53 ANSWER 18 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1984:423888 HCAPLUS
 DN 101:23888
 TI Phospholipid derivatives and their pharmaceutical compositions
 IN Tsutomu, Teraji; Eishiro, Todo; Norihiko, Shimazaki; Teruo, Oku; Takayuki, Namiki
 PA Fujisawa Pharmaceutical Co., Ltd., Japan
 SO Eur. Pat. Appl., 51 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 100499	A2	19840215	EP 1983-107236	19830723
	EP 100499	A3	19850612		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	US 4585762	A	19860429	US 1983-513451	19830713
	DK 8303473	A	19840131	DK 1983-3473	19830728
	JP 59042394	A2	19840308	JP 1983-139709	19830729
	ES 524610	A1	19841201	ES 1983-524610	19830729
	ES 530669	A1	19850501	ES 1984-530669	19840315
	ES 530668	A1	19850701	ES 1984-530668	19840315
	PRAI	GB 1982-22020		19820730	

AB RCH₂(CHR₁)_nCH₂OP(O)R₂R₃ [R = alkyl, alkoxy, alkylthio, alkylsulfonyl; R₁ = H, OH, alkoxy, alkanoyloxy, alkylcarbamoyloxy; n = 0, 1; R₂ = (un)protected OH; R₃ = alkoxy, alacyclic oxy group with .gtoreq.2 (un)protected OH groups], or their pharmaceutically acceptable salts, were prepd. as antitumor agents. Thus, DL-2-methoxyoctadecyl 2-(1,3,4,5,6-penta-O-acetyl-DL-myo-inosityl) Ph phosphate was obtained from Ag 2-(1,3,4,5,6-penta-O-acetyl-DL-myo-inosityl) Ph phosphate and DL-2-methoxyoctadecyl iodide. The product was hydrogenolized, then treated with ion-exchange resin (Dowex 50) to give DL-2-methoxyoctadecyl 2-(DL-myo-inosityl) phosphate (I). I was a more effective antitumor agent against fibrosarcoma Meth A in female mice than was 1-O-octadecyl-2-O-methylglycerol-3-phosphorylcholine.

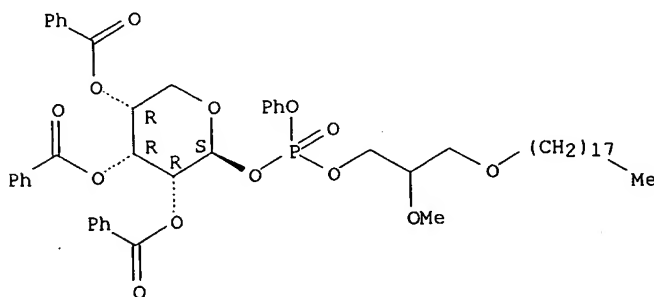
IT 90339-63-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation)
 (prepn. and hydrogenolysis of)

RN 90339-63-2 HCAPLUS

CN .beta.-D-Ribopyranose, 2,3,4-tribenzoate 1-[2-methoxy-3-(octadecyloxy)propyl phenyl phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 90339-64-3P

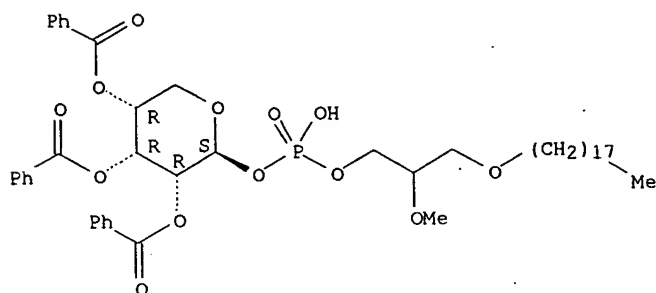
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation)
 (prepn. and ion-exchange reaction of)

RN 90339-64-3 HCAPLUS

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CN .beta.-D-Ribopyranose, 2,3,4-tribenzoate 1-[2-methoxy-3-(octadecyloxy)propyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



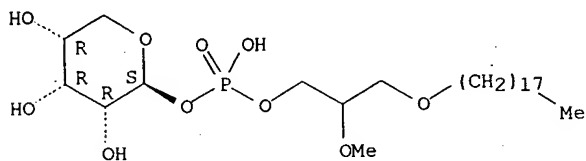
IT 90339-65-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 90339-65-4 HCAPLUS

CN .beta.-D-Ribopyranose, 1-[2-methoxy-3-(octadecyloxy)propyl hydrogen phosphate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 110-87-2

RL: RCT (Reactant)

(reaction of, with tetraacetyl(trifluoromethanesulfonyl)myoinositol in presence of toluenesulfonic acid)

RN 110-87-2 HCAPLUS

CN 2H-Pyran, 3,4-dihydro- (8CI, 9CI) (CA INDEX NAME)



=> d bib abs hitstr 153 19

L53 ANSWER 19 OF 23 HCAPLUS COPYRIGHT 2000 ACS

AN 1983:612839 HCAPLUS

DN 99:212839

TI A novel stereoselective route to alkyl 2-deoxy-.beta.-D-glucosides via S-(2-deoxy-.alpha.-glucosyl) phosphorodithioates

AU Michalska, Maria; Borowiecka, Joanna

CS Fac. Pharm., Med. Acad., Lodz, 90145, Pol.

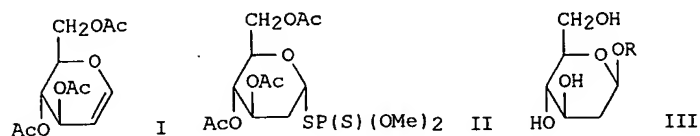
SO J. Carbohydr. Chem. (1983), 2(1), 99-103

CODEN: JCACDM; ISSN: 0732-8303

DT Journal

LA English

GI



AB Adding (MeO)2P(S)SH to glucal I stereoselectivity gave .alpha.-phosphorodithioate II, which on treatment with ROH (R = Me, Et, Pr, Me2CH, Me2CHCH2) in the presence of a base gave, with full anomerization, .beta.-D-deoxyglucopyranosides III.

IT 2873-29-2

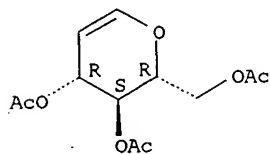
RL: RCT (Reactant)

(addn. reaction of, with di-Me phosphorodithioate, stereoselective)

RN 2873-29-2 HCAPLUS

CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 69908-93-6P

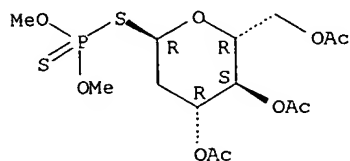
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and alcoholysis of)

RN 69908-93-6 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate 1-(O,O-dimethyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



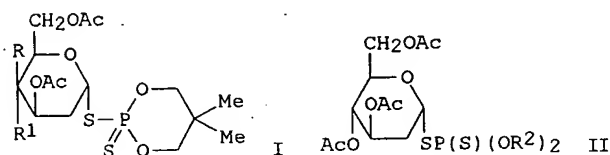
LEE 09/413,381

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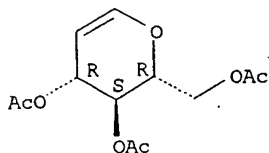
=> d bib abs hitstr 153 20

L53 ANSWER 20 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1979:204379 HCAPLUS
 DN 90:204379
 TI Synthesis of S-(2-deoxy-.alpha.-D-glycosyl)phosphorodithioates by addition of dialkyl hydrogenphosphorodithioates to glycols: a potential route to 2-deoxy-1-thio-.alpha.-D sugars
 AU Borowiecka, Joanna; Michalska, Maria
 CS Fac. Pharm., Med. Acad., Lodz, Pol.
 SO Carbohydr. Res. (1979), 68(1), C8-C10
 CODEN: CRBRAT; ISSN: 0008-6215
 DT Journal
 LA English
 GI



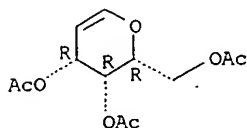
AB Reaction of 3,4,6-tri-O-acetyl-D-glucal and -D-galactal with 2-mercapto-5,5-dimethyl-2-thioxo-1,3,2-dioxaphosphorinane in C₆H₆ at ambient temp. gave >60% glycosyl phosphorodithioates I (R = H, R₁ = OAc; R = OAc, R₁ = H). Phosphorodithioates II (R₂ = Me, Pr, Bu) were similarly prepd.
 IT **2873-29-2**
 RL: RCT (Reactant)
 (addn. reaction of, with dialkyl hydrogen phosphorodithioic acid)
 RN 2873-29-2 HCAPLUS
 CN D-arabino-Hex-1-enitol, 1,5-anhydro-2-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT **4098-06-0**
 RL: RCT (Reactant)
 (addn. reaction of, with mercaptodimethylthioxodioxaphosphorinane)
 RN 4098-06-0 HCAPLUS
 CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



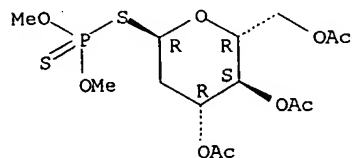
IT 69908-93-6P 69908-94-7P 70341-63-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 69908-93-6 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
1-(O,O-dimethyl phosphorodithioate) (9CI) (CA INDEX NAME)

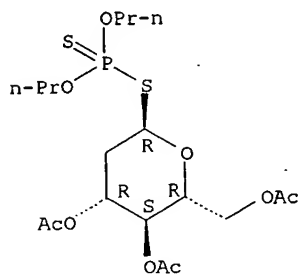
Absolute stereochemistry.



RN 69908-94-7 HCAPLUS

CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
1-(O,O-dipropyl phosphorodithioate) (9CI) (CA INDEX NAME)

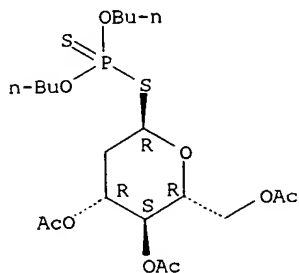
Absolute stereochemistry.



RN 70341-63-8 HCAPLUS

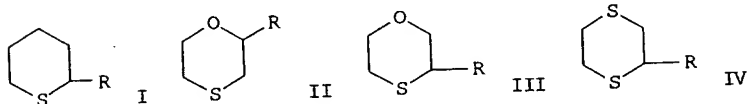
CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-1-thio-, 3,4,6-triacetate
1-(O,O-dibutyl phosphorodithioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d bib abs hitstr 153 21

L53 ANSWER 21 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1976:494293 HCAPLUS
 DN 85:94293
 TI Synthesis of some derivatives of tetrahydrothiopyran, 1,4-dithiane, and 1,4-oxathiane to find substances with pesticide action
 AU Blagoveshchenskii, V. S.; Kazimirchik, I. V.; Yakovleva, O. P.; Zefirov, N. S.; Denisenko, V. K.
 CS USSR
 SO Probl. S-kh. Nauki Mosk. Univ. (1975), 260-8. Editor(s): Dobrovol'skii, G. V. Publisher: Mosk. Univ., Moscow, USSR.
 CODEN: 32WJAO
 DT Conference
 LA Russian
 GI

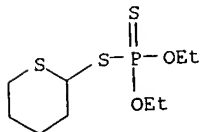


AB Tetrahydrothiopyrans [I, R = MeO, BuO, PrS, BuS, EtMe2CS; PhS, PhCH2S, (MeO)2P(S)S, (EtO)2P(S)S] were prepd. by treatment of dihydropyran with RH. 1,4-Oxathianes [II, R = Me3CO, PrS, Me3CS, Me2EtCS, PhCH2S, PhS, (MeO)2P(S)S, (EtO)2P(S)S] were obtained by treatment of dihydrooxathiane with RH. 1,4-Oxathianes [III, R = MeO, PrS, BuS, Me2CEtS, PhS] were obtained by treatment of the corresponding chlorooxathiane with RH. Addnl. obtained were 1,4-dithianes (IV, R = BuO, BuS, MeO). I-IV were useful in control of mosquitoes.

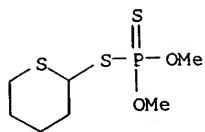
IT **13042-80-3**
 RL: RCT (Reactant)
 (addn. of alcs., mercaptans, and dialkylphosphorodithioates to)
 RN 13042-80-3 HCAPLUS
 CN 2H-Thiopyran, 3,4-dihydro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



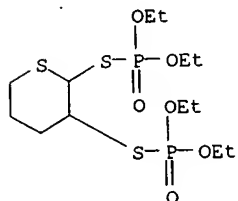
IT **27868-65-1P 27868-66-2P 27920-62-3P**
 RL: **SPN (Synthetic preparation)**; PREP (Preparation)
 (prepn. and control of mosquitoes by)
 RN 27868-65-1 HCAPLUS
 CN Phosphorodithioic acid, O,O-diethyl S-(tetrahydro-2H-thiopyran-2-yl) ester (8CI, 9CI) (CA INDEX NAME)



RN 27868-66-2 HCAPLUS
 CN Phosphorodithioic acid, O,O-dimethyl S-(tetrahydro-2H-thiopyran-2-yl) ester (8CI, 9CI) (CA INDEX NAME)



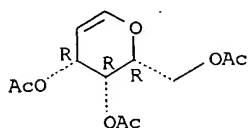
RN 27920-62-3 HCAPLUS
 CN Phosphorothioic acid, S,S'-(tetrahydro-2H-thiopyran-2,3-diyl)
 O,O,O',O'-tetraethyl ester (8CI, 9CI) (CA INDEX NAME)



=> d bib abs hitstr 153 22

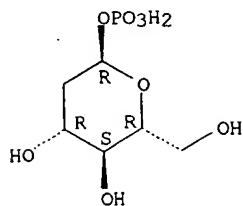
L53 ANSWER 22 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1974:404153 HCAPLUS
 DN 81:4153
 TI Synthesis of 2-deoxy-.alpha.-D-glucopyranosyl and 2-deoxy-.alpha.-D-galactopyranosyl phosphates
 AU Kucar, S.; Zamocky, J.; Bauer, S.
 CS Inst. Chem., Slovak Acad. Sci., Bratislava, Czech.
 SO Chem. Zvesti (1974), 28(1), 115-19
 CODEN: CHZVAN
 DT Journal
 LA English
 GI For diagram(s), see printed CA Issue.
 AB The title compds. were prepd. by phosphorylation of I and II, resp., with cryst. H3PO4 in THF, followed by treatment with N LiOH in THF at 0.degree. for 16 hr and neutralization.
 IT 4098-06-0
 RL: RCT (Reactant)
 (acetylation of)
 RN 4098-06-0 HCAPLUS
 CN D-arabino-Hex-5-enitol, 2,6-anhydro-5-deoxy-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 42400-47-5P 42400-48-6P 52522-48-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 42400-47-5 HCAPLUS
 CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-, 1-(dihydrogen phosphate), diammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



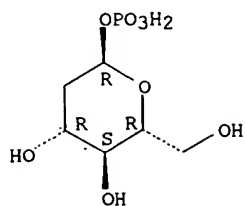
● 2 NH3

RN 42400-48-6 HCAPLUS
 CN .alpha.-D-arabino-Hexopyranose, 2-deoxy-, 1-(dihydrogen phosphate), compd. with cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 48150-47-6
 CMF C6 H13 O8 P
 CDES 5:A-D-ARABINO

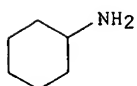
Absolute stereochemistry.



CM 2

CRN 108-91-8

CMF C6 H13 N



RN 52522-48-2 HCAPLUS

CN .alpha.-D-lyxo-Hexopyranose, 2-deoxy-, 1-(dihydrogen phosphate), compd. with cyclohexanamine (1:2) (9CI) (CA INDEX NAME)

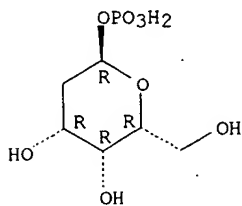
CM 1

CRN 52522-47-1

CMF C6 H13 O8 P

CDES 5:A-D-LYXO

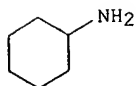
Absolute stereochemistry.



CM 2

CRN 108-91-8

CMF C6 H13 N

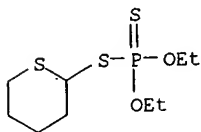


=> d bib abs hitstr 153 23

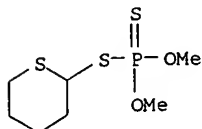
L53 ANSWER 23 OF 23 HCAPLUS COPYRIGHT 2000 ACS
 AN 1970:414632 HCAPLUS
 DN 73:14632
 TI Addition reactions occurring at the double bond of .DELTA.2-dihydrothiopyran
 AU Blagoveshchenskii, V. S.; Kazimirschik, I. V.; Ivanova, M. I.; Zefirov, N. S.
 CS Mosk. Gos. Univ. im. Lomonosova, Moscow, USSR
 SO Zh. Org. Khim. (1970), 6(4), 877-9
 CODEN: ZORKAE
 DT Journal
 LA Russian
 AB Condensation of .DELTA.2-dihydrothiopyran (I) with alcs. in Et₂O soln. contg. HCl gave 2(or 3)-R-substituted-tetrahydropyrans (II) (R is OMe, OBU). Similarly, treating I with BuSH gave II (R = SBU). I with dialkyl dithiophosphates gave II [R is SP(:S)(OMe)₂ or SP(:S)(OEt)₂]. The reactions of I with tetra-Et bistiophosphate gave 2-R,3-R₁-disubstituted-tetrahydropyran (III) [R and R₁ are SP(:O)(OEt)₂]. Similarly, I reacted with Hg(OAc)₂ in MeOH to give III (R = OMe, R₁ = HgOAc), which was converted into III (R = OMe, R₁ = HgCl). II and III are potential pesticides.
 IT 13042-80-3
 RL: RCT (Reactant)
 (addn. reaction of, with alcs.)
 RN 13042-80-3 HCAPLUS
 CN 2H-Thiopyran, 3,4-dihydro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IT 27868-65-1P 27868-66-2P 27920-62-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 27868-65-1 HCAPLUS
 CN Phosphorodithioic acid, O,O-diethyl S-(tetrahydro-2H-thiopyran-2-yl) ester (8CI, 9CI) (CA INDEX NAME)



RN 27868-66-2 HCAPLUS
 CN Phosphorodithioic acid, O,O-dimethyl S-(tetrahydro-2H-thiopyran-2-yl) ester (8CI, 9CI) (CA INDEX NAME)



RN 27920-62-3 HCAPLUS
 CN Phosphorothioic acid, S,S'-(tetrahydro-2H-thiopyran-2,3-diyl) O,O,O',O'-tetraethyl ester (8CI, 9CI) (CA INDEX NAME)

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